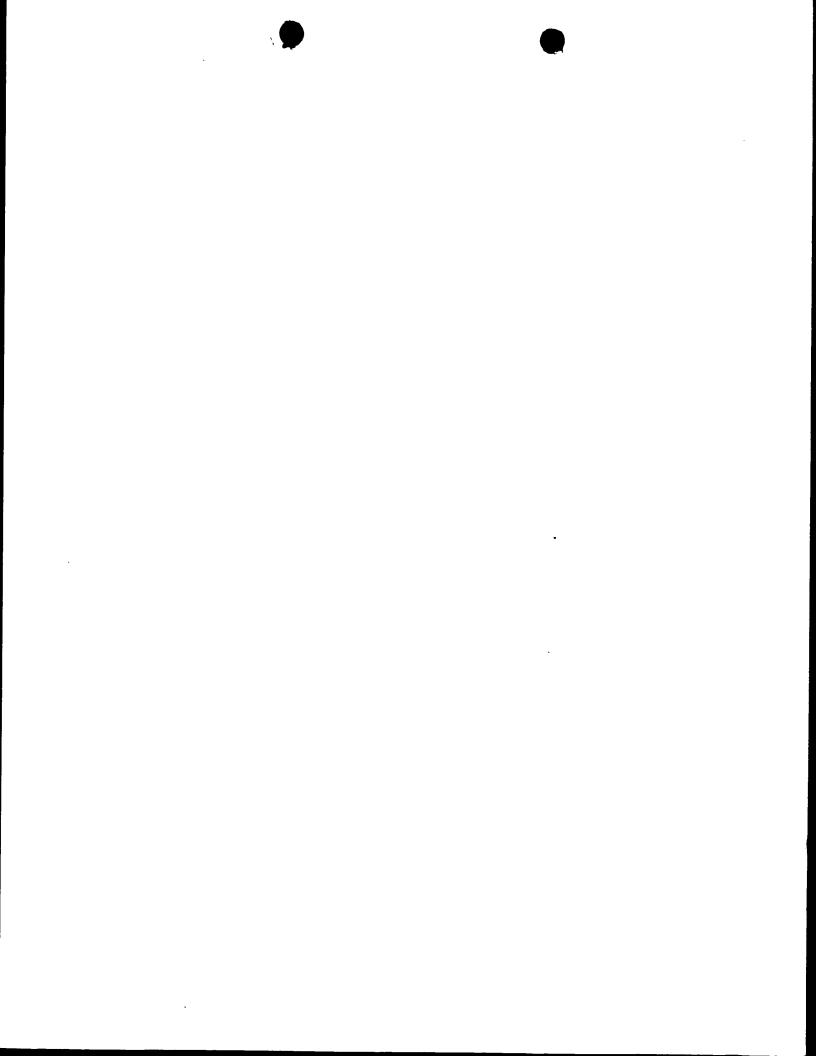
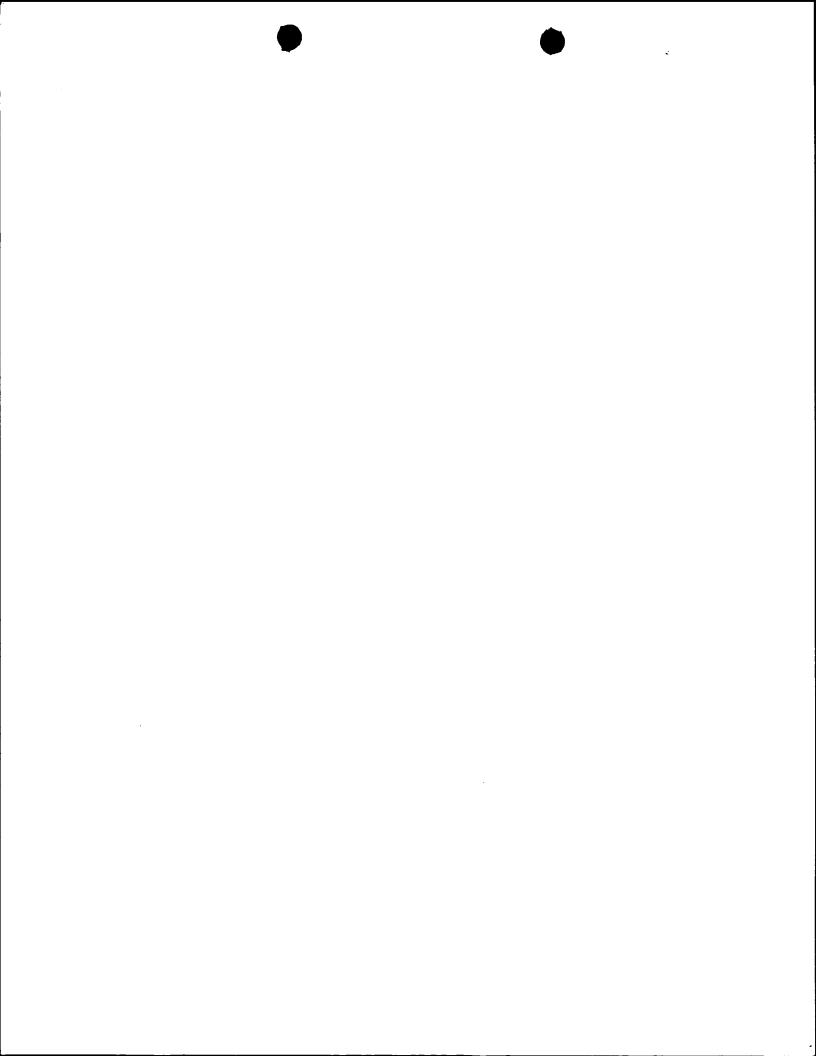
	FILE 'BIOSIS, MEDLINE' FILE AT 09:43:27 ON 15 JAN 200
L1	12 S (FGF19)
L2	9 DUP REM L1 (3 DUPLICATES REMOVED)
L3	62308 \$ FUSION (W) (POLYPEPTIDE? OR PROTEIN? OR POLYPROTEIN?)
L4	167774 S L3 OR IMMUNOCONJUGATE? OR CONJUGATE?
L5	244 S L4 (P) SAPORIN?
L6	33 S L5 (P) (FGF)
L7	O S L6 AND (MYELOMA? OR OSTEOSARCOMA?)
L8	15 S ((FGF2) OR (FGF3)) (W) RECEPTOR?
L9	70327 S (MYELOMA? OR OSTEOSARCOMA?)
L10	0 S L8 (P) L9
L11	13 S L8 AND CELL?
L12	8 DUP REM L11 (5 DUPLICATES REMOVED)
L13	17 DUP REM L6 (16 DUPLICATES REMOVED)
L14	4 S L13 AND PROLIFERATION?

09/424,080

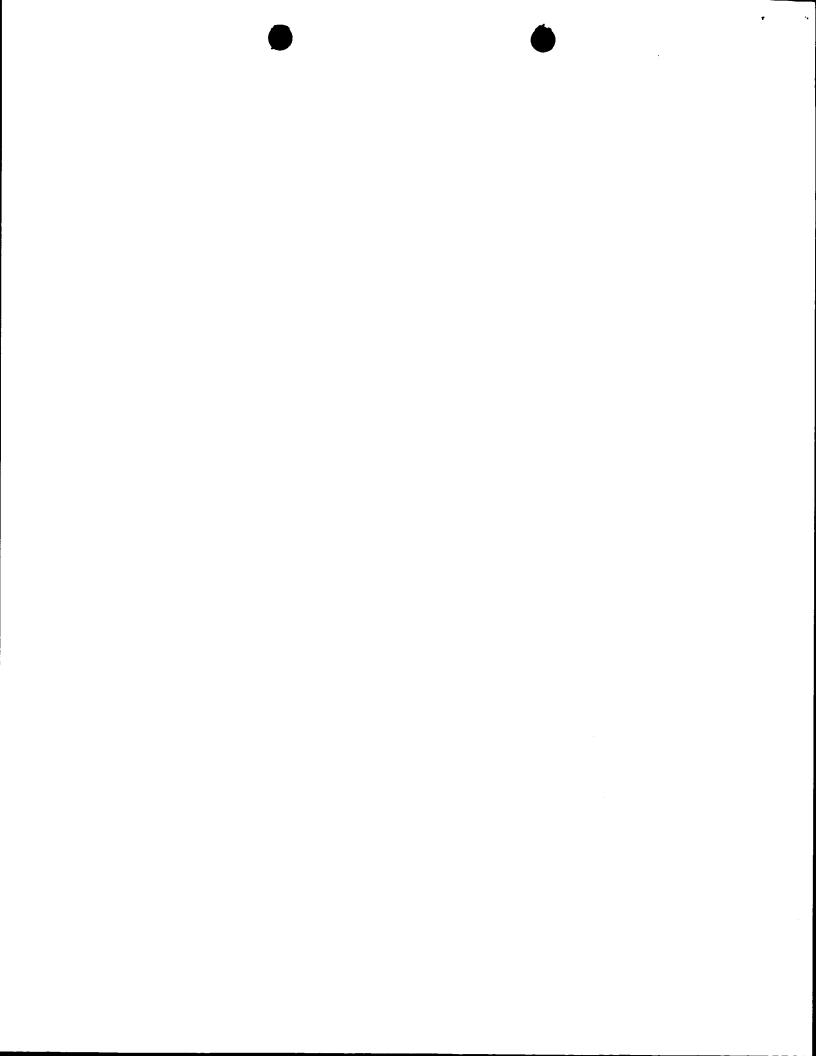


DB Name	<u>Query</u>	Hit Count	Set Name
JPAB,EPAB,DWPI,TDBD	129 and (myeloma\$ or osteosarcoma\$)	0	<u>L30</u>
JPAB,EPAB,DWPI,TDBD	126 same (FGF)	15	<u>L29</u>
JPAB,EPAB,DWPI,TDBD	125 same 126	0	<u>L28</u>
JPAB,EPAB,DWPI,TDBD	125 and 126	0	<u>L27</u>
JPAB,EPAB,DWPI,TDBD	124 same saporin\$	28	<u>L26</u>
JPAB,EPAB,DWPI,TDBD	((FGF) adj (18)) or (FGF18)	2	<u>L25</u>
JPAB,EPAB,DWPI,TDBD	123 or immunoconjugate\$ or conjugate\$	58618	<u>L24</u>
JPAB,EPAB,DWPI,TDBD	fusion adj (polypeptide\$ or protein\$ or polyprotein\$)	4035	<u>L23</u>
JPAB,EPAB,DWPI,TDBD	cell\$ same (myeloma\$ or osteosarcoma\$) same ((FGF) adj receptor\$)	1	<u>L22</u>
USPT,PGPB	cell\$ same (myeloma\$ or osteosarcoma\$) same ((FGF) adj receptor\$)	2	<u>L21</u>
USPT,PGPB	cell\$ same (myeloma\$ or osteosarcoma\$) same ((FGF) same receptor\$)	5	<u>L20</u>
USPT,PGPB	cancer\$ same cell\$ same (myeloma\$ or osteosarcoma\$) same ((FGF) same receptor\$)	1	<u>L19</u>
USPT,PGPB	114 and (proliferation\$ or proliferate\$)	16	<u>L18</u>
USPT,PGPB	114 and (proliferation\$ or proliferate\$)	16	<u>L17</u>
USPT,PGPB	114 and proliferation\$ or proliferate\$	8330	<u>L16</u>
USPT,PGPB	114 and myeloma and osteosarcoma and cells	0	<u>L15</u>
USPT,PGPB	113 same (FGF)	16	<u>L14</u>
USPT,PGPB	16 same saporin\$	109	<u>L13</u>
USPT,PGPB	111 and saporin\$	0	<u>L12</u>
USPT,PGPB	16 and 19	2	<u>L11</u>
USPT,PGPB	16 same 19	0	<u>L10</u>
USPT,PGPB	17 or 18	3	<u>L9</u>
USPT,PGPB	(FGF18)	1	<u>L8</u>
USPT,PGPB	(FGF) adj (18)	3	<u>L7</u>
USPT,PGPB	15 or immunoconjugate\$ or conjugate\$	75647	<u>L6</u>
USPT,PGPB	fusion adj (polypeptide\$ or protein\$ or polyprotein\$)	12704	<u>L5</u>
USPT	(FGF18)	1	<u>L4</u>
USPT	(FGF-18) same saporin\$	0	<u>L3</u>
USPT	11 or immunoconjugate\$ or conjugate\$	73088	<u>L2</u>
USPT	fusion adj (polypeptide\$ or protein\$ or polyprotein\$)	12092	<u>L1</u>



DB Name	<u>Query</u>	Hit Count	Set Name
JPAB,EPAB,DWPI,TDBD	cyclosporin\$ same (FK506) same rapamycin same interferon\$	2	<u>L20</u>
USPT,PGPB	cyclosporin\$ same (FK506) same rapamycin same interferon\$	12	<u>L19</u>
USPT,PGPB	117 and (inflammat\$ or cancer\$ or autoimmune\$ or disease\$ or disorder\$)	88	<u>L18</u>
USPT,PGPB	116 and composition\$	88	<u>L17</u>
USPT,PGPB	cyclosporin\$ and (FK506) and rapamycin and interferon\$	100	<u>L16</u>
USPT,PGPB	114 and composition\$	11	<u>L15</u>
USPT,PGPB	113 and (cancer\$ or lymphoma\$ or leukemia\$ or myeloma\$ or denocarcinoma\$ or autoimmune\$ or (chronic inflammatory disease\$) or (rheumatoid arthritis) or (myasthenia gravis) or (lupus erythematosis) or uveitis or (hyperprolferative disease\$) or (psoriasis vulgaris))	14	<u>L14</u>
USPT,PGPB	112 same interferon\$.clm.	21	<u>L13</u>
USPT,PGPB	cyclosporin\$ or (FK506) or rapamycin.clm.	4096	<u>L12</u>
USPT,PGPB	110 and composition.clm.	20	<u>L11</u>
USPT,PGPB	18 same 19	27	<u>L10</u>
USPT,PGPB	interferon\$.clm.	1623	<u>L9</u>
USPT,PGPB	immunosuppressant\$ or cyclosporin\$ or (FK506) or rapamycin.clm.	5361	<u>L8</u>
USPT,PGPB	11 same interferon\$	349	<u>L7</u>
USPT,PGPB	15 and 14	12	<u>L6</u>
USPT,PGPB	11 and composition\$	4653	<u>L5</u>
USPT,PGPB	(bioactive adj peptide\$) and interferon\$	143	<u>L4</u>
USPT,PGPB	(bioactive adj peptide\$) or interferon\$	12223	<u>L3</u>
USPT,PGPB	(bioactive adj peptide\$) and interferon\$	143	<u>L2</u>
USPT,PGPB	immunosuppressant\$ or cyclosporin\$ or (FK506) or rapamycin	5450	<u>L1</u>

09/424,080

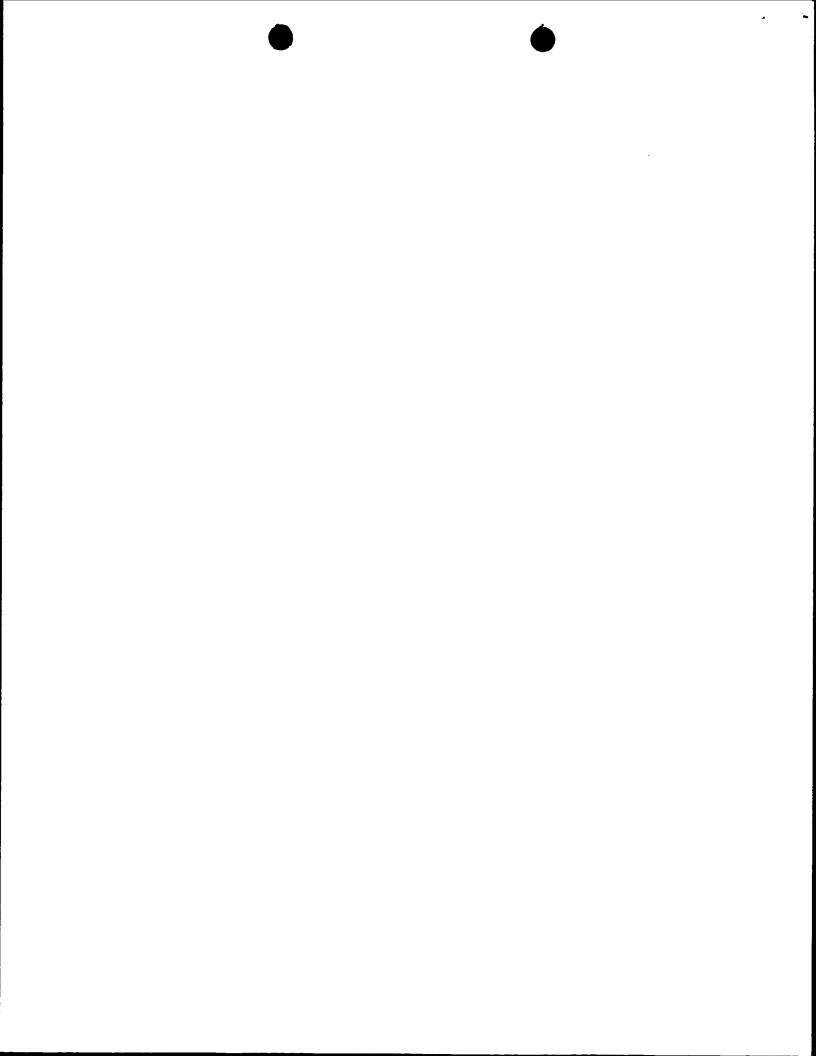


=> s cyclosporin? (p) (FK506) (p) rapamycin
L3 736 CYCLOSPORIN? (P) (FK506) (P) RAPAMYCIN

=> s interferon? (w) (alpha or beta or omega or tao)
L4 46367 INTERFERON? (W) (ALPHA OR BETA OR OMEGA OR TAO)

=> s 13 and 14
L5 3 L3 AND L4

=> dup rem 15
PROCESSING COMPLETED FOR L5
L6 3 DUP REM L5 (0 DUPLICATES REMOVED)



,<u>\*</u>`

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Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Run on:
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Maximum Match 100%
Listing first 50 summaries
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Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                January 15, 2002, 08:34:38; Search time 38.96 Seconds (without alignments) 15.210 Million cell updates/sec
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42
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1: /SIDS8/gcgdata/geneseq/geneseqp/AA1980.DAT:*

2: /SIDS8/gcgdata/geneseq/geneseqp/AA1981.DAT:*

3: /SIDS8/gcgdata/geneseq/geneseqp/AA1982.DAT:*

4: /SIDS8/gcgdata/geneseq/geneseqp/AA1983.DAT:*

5: /SIDS8/gcgdata/geneseq/geneseqp/AA1984.DAT:*

5: /SIDS8/gcgdata/geneseq/geneseqp/AA1985.DAT:*
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                                                                                                                   /SIDSB/gcgdata/geneseq/geneseqp/AA198b.DAT:*
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/SIDSB/gcgdata/geneseq/geneseqp/AA199b.DAT:*
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/SIDS8/gcgdata/geneseq/geneseqp/AA2001.DAT:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Result Query Query Description  No. Score Match Length DB ID  1
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Chimeric interfero N-terminal modifie Interferon alpha A	int bu	Mature human IFNal Mutant human IFNal Mutant human IFNal	interferon-	interferon:		Human interferon-a	an interfero	Human interferon-a	Interieron-alpha-7	Lymphoblastoid int	alpha-in	Hybrid alpha-inter	sequence of interf	of	sequence of hybrid	of t	Ω	-3	human	human	ic huma	3	Hybrid interferon	A human interferon

## ALIGNMENTS

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AAR47561
                                                                                                                                             IFN; cell surface receptor; pharmaceutical carrier molecule; drug delivery; neoplastic tissue; infection; Type 1 human interferon receptor complex.
                                                                                                                                                                                  Interferon-receptor binding peptide #4.
                                                                                                                                                                                                      12-JUL-1994 (first entry)
                                                                                                                                                                                                                       AAR47561;
                                                                                                                                                                                                                                          AAR47561 standard; peptide; 11 AA
                                                                                                           W09401457-A.
                                                                                                                              Synthetic.
                                             07-JUL-1992;
20-NOV-1992;
         Fish EN
                                                                         06-JUL-1993;
                                                                                          20-JAN-1994.
                           (FISH/) FISH E N.
                                              92US-0909739.
92US-0980525.
                                                                          93WO-CA00279.
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В
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Matches
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                                    Sequence
                                                   The critical clusters of amino acids in the different IFN-alphas and IFN-beta that interact with the Type 1 IFN receptor complex were defined. These critical peptide domains were used to design synthetic peptides AAR47558-R47564 that are useful as carriers for pharmaceutical compositions.
                                                                                                                                                                                                                                  Fish
                                                                                                                              Claim 5; Page 35; 51pp; English.
                                                                                                                                                              New interferon receptor-binding peptide(s) - useful for delivering a pharmaceutically active drug to cells, e.g
                                                                                                                                                                                                        WPI; 1994-034987/04.
                                                                                                                                                                                                                                                      (FISH/) FISH E
                                                                                                                                                     neoplastic, infected or inflamed tissue cells
                                                                                                                                                                                                                                                                               20-NOV-1992;
                                                                                                                                                                                                                                                                                          07-JUL-1992;
                                                                                                                                                                                                                                                                                                                  06-JUL-1993;
                                                                                                                                                                                                                                                                                                                                          20-JAN-1994
                                                                                                                                                                                                                                                                                                                                                                  WO9401457-A
                                                                                                                                                                                                                                                                                                                                                                                          Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAR47562 standard; peptide; 18 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                Type 1 human
                                                                                                                                                                                                                                                                                                                                                                                                                                IFN; cell surface receptor; pharmaceutical carrier molecule;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Interferon-receptor binding peptide #5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-JUL-1994 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAR47562;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The critical clusters of amino acids in the different IFN-alphas and IFN-beta that interact with the Type 1 IFN receptor complex were defined. These critical peptide domains were used to design synthetic peptides AAR47558-R47564 that are useful as carriers for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 4; Page 35; 51pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 pharmaceutical compositions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New interferon receptor-binding peptide(s) - useful for delivering a pharmaceutically active drug to cells, e.g. neoplastic, infected or inflamed tissue cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1994-034987/04.
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                                                                                                                                                                                                                                                                                                                                                                                                                        delivery; neoplastic tissue;
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8; Conserv
                                    18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                            interferon receptor complex.
                                                                                                                                                                                                                                                         z
                                                                                                                                                                                                                                                                               92US-0980525
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 42; DB 15
Pred. No. 0.075;
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                                                                                                                                                                                                                                                                                                                                                                                                                         infection;
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100.0%;

Score 42;

DB 15;

Length 18;

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AAY55987
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Sequence encoded by leukocyte interferon LeIF G cDNA
                          10-AUG-1992
                                                  AAP20109;
                                                                                                                                                                                                                                                          This sequence corresponds to a fragment of the human interferon-alpha5 protein (GenBank Accession No: X02956). The invention relates to a method of using interferon-alpha5 or its coding sequence to prepare compositions for treatment of hepatic diseases, e.g. (i) chronic hepatitis C; (ii) cirrhosis of viral origin and (iii) hepatocellular carcinoma. The method restores the level of interferon-alpha5, which is reduced in diseased liver cells, to normal levels.
                                                                      AAP20109 standard; Protein; 133 AA
                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 30; 36pp; Spanish.
                                                                                                                                                                                                                                                                                                                                                                            Treating liver diseases with interferon-alpha5 or nucleic acid encoding it, particularly chronic hepatitis \ensuremath{\text{C}} -
                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Prieto Valtuena J,
                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2000-038959/03.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (CIEN-) INST CIENTIFICO & TECNOLOGICO NAVARRA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9958143-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Antiviral; anticancer; antiproliferative; human; interferon-alpha5; hepatic disease; hepatitis C; viral cirrhosis; hepatocellular carcinoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Partial human interferon-alpha5 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-MAR-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            liver; gene expression.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY55987 standard; Protein; 90 AA
                                                                                                                                                         1 LTEKKYSP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
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                                                                                                                                                                                                                                           90 AA;
                          (first entry)
                                                                                                                                                                                 Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98ES-0001003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-ES00134.
                                                                                                                                                                                       100.0%; Score 42; DB 2: 100.0%; Pred. No. 0.68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Civeira Murillo MP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.08;
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                                                                                                                                                                                                 DB 21; Length 90;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     Larrea Leoz E;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                         Gaps
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                                                                                                                                                                                                                                                                                                                                                       Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21-APR-1981;
01-JUL-1980;
08-SEP-1980;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GB2079291-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Viral infection;
                                                                                                                                                                                                                                                       11799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUL-1981;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-JAN-1982
                                                                                                                                                                                                                                                                                                                                                                                                                    The inventors claim a polypeptide comprising the AA sequence of a mature human LeIF and a DNA sequence encoding it. LeIF A-D, F, H-J and encoding DNA are specifically claimed. They are natural allelic variations. LeIF is isolated from the leukocytes of humans with chronic myelogenous leukaemia, induced to produce interferon with sendai or Newcastle disease virus; esp. the cell line KG-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mature human leukocyte interferon polypeptide(s) - prepd. from microbes transformed with appropriate DNA sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB; AAN20096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1982-04460E/03.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Goeddel DVN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GENE-) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-NOV-1980;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example; Fig 4; 20pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (HOFF )
                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                        Cellular receptor 2; CR2; binding site; BS; auto-immune disease; Epstein-Barr Virus; EBV; B lymphocyte; ligand; interferon alpha 88
                                                                                                                                                                        Interferon alpha 88 as CR2 ligand
                                                                                                                                                                                                03-JUN-1991
                                                                                                                    Synthetic.
                                                                                                                                                                                                                      AAR11799;
                                                                                                                                                                                                                                          AAR11799 standard; Protein; 150 AA
                                                               Binding-site
         21-MAR-1991
                                                                                    Binding-site
                                 WO9103251-A
                                                                                                                                                                                                                                                                                                                                           Local Similarity
hes 8; Conserv
                                                                                                                                                                                                                                                                                                   98
                                                                                                                                                                                                                                                                                                                       1 LTEKKYSP 8
                                                                                                                                                                                                                                                                 ű
                                                                                                                                                                                                                                                                                                ltekkysp 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HOFFMANN-LA ROCHE AG
                                                                                                                                                                                                                                                                                                                                                                                                     133 AA;
                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pestka S;
                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               80US-0164986.
80US-0184909.
80US-0205578.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     81GB-0120279.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                81US-0256204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           therapy; malignancy.
                                                                                      Location/Qualifiers 72..86
                                                                           /note= "fragment pref. included"
                                                       /note=
                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                      "fragment most pref. included"
                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                         Score 42; E
Pred. No. 1;
                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                      DB 3;
                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                      Length 133;
                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                   0;
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Query Match
Best Local Similarity
Conserv.
                                                                                                                                                                                                                                                                                                                                                                  RESULT
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뮹
                                                                                                                                                                                                                                                                                                                                                         AAP50168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The ligand pref. includes the fragment indicated in the features. The ligand pref. contains only a single BS and has an amino acid sequence <100 (pref. <20) residues in length.

The ligand may also comprise a plurality of fragment 75..82. A therapeutic compsn. contg. the polypeptide is used to stimulate or inhibit B lymphocyte proliferation in patients with B cell lymphoma. B lymphocytes and myeloma's can be stimulated in patients with immunodeficiencies and immunoglobulin secretion by patients with immunodeficiencies and immunoglobulin secretion by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-SEP-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08-SEP-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA segment encoding CR-2 ligand and CR2 binding site - used to treat auto-immune disease, B-cell lymphoma and inhibit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1991-101864/14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lernhardt W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-APR-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Fig 2; 129pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Epstein-Barr virus infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (CALB-) CALIF INST BIOLOGIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      hybridoma cultures can be boosted. The compsn. can be administered to inhibit infection in vitro or vivo by Epstein-Barr Virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            See also AAQ11140-42 and AAR11355 for IFN alpha.
                                                                                                                                                                                                                                                                                                                                            AAP50168 standard; Protein; 162 AA.
                                                                                                                                                                                                                                            Antiviral agent; antitumour; interferon-alpha; virucide;
                                                                                                                                                                                                                                                                  sequence of hybrid alpha interferon (alpha-IFN).
                                                                                                                                                                                                                                                                                              30-OCT-1991
                                                                                                                                                                                                                                                                                                                      AAP50168;
                                                                                                                                                            03-JUL-1985.
                                                                                                                                                                                   EP146903-A.
                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                         21-DEC-1983;
19-DEC-1983;
                                                                                                                                                                                                                                   immunostimulant
              N-PSDB; AAN50236
                                                                                                                                    17-DEC-1984;
                        WPI; 1985-160612/27
                                                Leibowitz PJ,
                                                                      (SCHE ) SCHERING CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                 1 LTEKKYSP 8
                                                                                                                                                                                                                                                                                                                                                                     6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      150 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        90US-0512118.
89US-0404679.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              90WO-US05027
                                                 Ryan MJ
                                                                                                83US-0564066.
83US-0562639.
                                                                                                                                     84EP-0115623.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 42; DB 100.0%; Pred. No. 1.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 150;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
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ID XX ACC XXX DT XXX DT XXX CXX XXX XX
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AAP30687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity
The sequence is that of a polypeptide which differs from human
                                                                                                                                                                                                                                                                                                                                                                                                             15-APR-1983;
06-MAY-1982;
12-DEC-1983;
21-SEP-1987;
01-JAN-1990;
                                                         Claim 46; Page 85; 94pp; English.
                                                                                                                              Construction of large structural genes - useful in prepn. of
                                                                                                              human leukocyte interferon and analogues
                                                                                                                                                                                                   WPI; 1983-833208/48.
                                                                                                                                                                                                                                                                                                       (MOLE-) APPL MOLECULAR GENE.
                                                                                                                                                                                                                                                                                                                                           (AMGE-) AMGEN INC.
(AMGE-) AMGEN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-APR-1983;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-NOV-1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        W08304053-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mutation; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Thr14, Met16 mutant human leukocyte interferon subtype F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 two different naturally occurring alpha-IFN as joined discrete subsequences. They are defined and arranged as a delta-4 alpha-2 (Bgl II-1) sub-segment preceding a (Bgl II) alpha-1 segment. It has an antiviral activity of at least 100,000,000 units/mg by cytopathic effect-inhibition assay, Dose is 100,000 - 1000,000,000 units/square metre body surface daily topically. The N-terminal Met is optional. The claimed DNA sequence coding for the hybrid alpha-IFN may differ in accordance with the degeneracy of the genetic code.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-SEP-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAP30687;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAP30687 standard; Protein; 165 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The hybrid alpha-IFN of the invention includes different portions of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 2; Page 22; 26pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                127 ltekkysp 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    prepd. by recombinant DNA procedures
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New hybrid alpha-interferon with enhanced antiviral activity -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 LTEKKYSP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7
                                                                                                                                                                                                                                                                                                                                        AMGEN
                                                                                                                                                                                                                                                  Peters MA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        162 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                       83US-0483451.
82US-0375494.
83US-0560495.
87US-0099096.
90EP-0124236.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               83WO-US00605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note⇒ "mutation, Ile -> Met"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note= "mutation, Ala -> Thr"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
                                                                                                                                                                                                                                                  Stabinsky Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 42; DB Pred. No. 1.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                  Snitman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 162;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
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This sequence represents a human interferon-alpha 2b (IFN-alpha 2b) CC mutant (R132T) which was recombinantly expressed in mice. A series of IFN-alpha 2b mutants were prepared with various single amino acid CC substitutions (AAM4382-90). The effect of these substitutions on CC compared. This mutant had a relative activity of 0.1 compared with CC compared. This mutant had a relative activity of 0.1 compared with CC targets expression of interferon in selected cells. The complex which CC comprises the gene encoding interferon releasably linked to a conjugate CC of nucleic acid binding agent and a ligand which binds to a component on the surface of the cell. The method is used for targeted expression of cells. The without the surface of hepatitis, several forms of cancer and leukaemia and CC condylona acuminatum, or for production of IFN for subsequent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAW43382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QΥ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                        administration as exogenous protein.
Sequence
                                                                                                                                                                                                                                                                                                              Delivering interferon gene to target mammalian cells in vivo or vitro - as a molecular complex with a conjugate of nucleic acid binding agent and ligand for cell surface receptor, e.g. for treating virus infection or tumours
                                                                                                                                                                                                                                                                                      Disclosure; Figure 11B; 52pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1997-470878/43.
                                                                                                                                                                                                                                                                                                                                                                                                                                       Carlo DJ, Chiou HC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (IMMU-) IMMUNE RESPONSE CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-MAR-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-SEP-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gene delivery; interferon-alpha 2b; IFN-alpha 2b; IFN-beta; IFN-gamma; nucleic acid binding agent; targeted expression; mutant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9733998-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human interferon-alpha 2b mutant (K132T).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-APR-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW43382;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW43382 standard; protein; 165 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   leukocyte interferon subtype F by two amino acid substitutions. It may be recombinantly produced in micro organisms transformed with the manufactured gene encoding it. See also AAP30673-P30686.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                131 ltekkysp 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
nes 8; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 LTEKKYSP 8
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165 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              165 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     96US-0616023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97WO-US03846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. 1.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4.
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Query Match Best Local Similarity

100.0%;

Score 42; Pred. No.

DB 18;

Length 165;

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RESULT
AAW43386
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                                                                                                                                                              Query Match
                                                                                                                                  Matches
                                                                                                                                                                                                                                                                     mutant (0125R; K132T) which was recombinantly expressed in mice. A series of IFN-alpha 2b mutants were prepared with various amino acid substitutions (AAW43382-90). The effect of these substitutions on antiviral activity (on mouse cells) for human IFN-alpha 2b was compared. This mutant had a relative activity of 23 compared with the native IFN-alpha 2b. The invention relates to a complex which targets expression of interferon in selected cells. The complex comprises the gene encoding interferon releasably linked to a conjugate of nucleic acid binding agent and a ligand which binds to a component on the surface of the cell. The method is used for targeted expression of recombinant IFN in selected cells, in vivo or in vitro, particularly for treatment of hepatitis, several forms of cancer and leukaemia and convictions a commission of the cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gene delivery; interferon-alpha 2b; IFN-alpha 2b; IFN-beta; IFN-gamma; nucleic acid binding agent; targeted expression; mutant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human interferon-alpha 2b mutant (Q125R; K132T).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Delivering interferon gene to target mammalian cells in vivo or in vitro - as a molecular complex with a conjugate of nucleic acid binding agent and ligand for cell surface receptor, e.g. for treating virus infection or tumours
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1997-470878/43.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (IMMU-) IMMUNE RESPONSE CORP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Figure 11B; 52pp; English.
                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                             administration as exogenous protein.
                                                                                                                                                                                                                                                            condyloma acuminatum, or for production of IFN for subsequent
                                                                   130 ltekkysp 137
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                                                                                                                                                Local Similarity
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                                                                                                                                 100.0%; Score 42; DB 18; 100.0%; Pred. No. 1.3; tive 0; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                 Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mutant (R121K; Q125R; K132T) which was recombinantly expressed in mice. A series of IFN-alpha 2b mutants were prepared with various amino acid substitutions (AAW43382-90). The effect of these substitutions on antiviral activity (on mouse cells) for human IFN-alpha 2b was compared. This mutant had a relative activity of 170 compared with the native IFN-alpha 2b. The invention relates to a complex which targets expression of interferon in selected cells. The complex comprises the gene encoding interferon releasably linked to a conjugate of incleic acid binding agent and a ligand which binds to a component on the surface of the cell. The method is used for targeted expression of recombinant IFN in selected cells, in vivo or in vitro, particularly for treatment of hepatitis, several forms of cancer and leukaemia and conditions accomplished to the cell of the content of the cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gene delivery; interferon-alpha 2b; IFN-alpha 2b; IFN-beta; IFN-gamma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human interferon-alpha 2b mutant (R121K; Q125R; K132T).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW43387 standard; protein; 165 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Delivering interferon gene to target mammalian cells in vivo or vitro - as a molecular complex with a conjugate of nucleic acid binding agent and ligand for cell surface receptor, e.g. for treating virus infection or tumours
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nucleic acid binding agent;
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                                                                                                                                                                                                                                                                                                                                                                                                                                    condyloma acuminatum, or for production of IFN for subsequent administration as exogenous protein.
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Gene delivery; interferon-alpha 2b; IFN-alpha 2b; IFN-beta; IFN-gamma;
                                  Human interferon-alpha 2b mutant (Q125K; K132T).
                                                                           07-APR-1998 (first entry)
                                                                                                             AAW43390;
                                                                                                                                                AAW43390 standard; protein; 165 AA
                                                                                                                                                                                                                                         130 ltekkysp 137
                                                                                                                                                                                                                                                                                                                               Local Similarity
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                                                                                                                                                                                                                                                                           1 LTEKKYSP 8
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                                                                                                                                                                                                                                                                                                                                                                                                         165 AA;
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                                                                                                                                                                                                                                                                                                              100.0%; Score 42;
100.0%; Pred. No.
tive 0; Mismatch
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                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                     1.3;
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RESULT 1
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                                                                                                                                   Interferon-alpha-2b; IFN-alpha; avb3 antagonist; avb3 receptor ligand; metastasis-associated receptor ligand; angiogenesis; cell proliferation; anti-angiogenic protein; avb3-integrin; cancer; arthritis; macular degeneration; diabetic retinopathy; hemanyloma; psoriasis; osteoporosis; thrombosis; angina; atherosclerosis; antiviral;
                                                                                                                                antibacterial;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This sequence represents a human interferon-alpha 2b (IFN-alpha 2b) mutant (Q125K; K132T) which was recombinantly expressed in mice. A series of IFN-alpha 2b mutants were prepared with various amino acid substitutions (AAW43382-90). The effect of these substitutions on antiviral activity (on mouse cells) for human IFN-alpha 2b was compared. This mutant had a relative activity of 45 compared with the native IFN-alpha 2b. The invention relates to a complex which targets expression of interferon in selected cells. The complex comprises the gene encoding interferon releasably linked to a component on the surface of the cell. The method is used for targeted expression of the surface of the cell. The method is used for targeted expression of the surface of the cell. The method is used for targeted expression of the surface of the cell.
                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                  A human interferon-alpha (IFN-alpha) protein.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY43492;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAY43492 standard; Protein; 165 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      recombinant IFN in selected cells, in vivo or in vitro, particularly for treatment of hepatitis, several forms of cancer and leukaemia and condyloma acuminatum, or for production of IFN for subsequent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
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Pred. No. 1.3;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 165;
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Вb
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CC The present sequence represents an interferon-alpha (IFN-alpha) protein, CC and can be conjugated to the avb3 antagonists of the invention. The CC specification describes pharmaceutical compounds and their salts which CC are dual avb3 receptor/metastasis-associated receptor ligands. These CC compounds inhibit angiogenesis and thus proliferation of (cancer) cells. One compound to the avb3 receptor and the other to a metastasis-associated receptor. The avb3 antagonists may also be CC conjugated to anti-angiogenic proteins, such as IFN-alpha and its CC conjugated to anti-angiogenic proteins, such as IFN-alpha and its CC derivatives. The compounds are used to treat angiogenesis-related CC disorders (mediated by the avb3-integrin), specifically cancer (of lung, CC melanoma, hepatoma, sarcoma and lymphoma), arthritis and macular CC degeneration, and also diabetic retinopathy, hemangioma, psoriasis, CC osteoporosis, thrombosis, angina, atherosclerosis etc. The compounds xxx and so be useful as antiviral, antibacterial and antifungal agents.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                 Biconjugate; a_vb_3 integrin; interferon alpha; angiogenesis; cancer; tumour; osteoporosis; Paget's disease; Karposi's sarcoma; periodontal disease; metastasis; neoplasia; retinopathy; arthritis; psoriasis; leukaemia; malignant melanoma; atherosclerosis; smooth muscle cell migration; inhibition; treatment; antagonist;
                                                                                 WO200009143-A1
                                                                                                               Homo sapiens.
                                                                                                                                              antibacterial
                                                                                                                                                            angina; thrombosis;
                                                                                                                                                                                                                                                                 N-terminal modified interferon alpha A/D hybrid
                                                                                                                                                                                                                                                                                                     25-JUL-2000
                                                                                                                                                                                                                                                                                                                                                              AAY82887 standard; Protein; 165 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                               130 ltekkysp 137
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           diseases, e.g. cancer -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              metastasis-associated receptor, for treating angiogenesis-related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New conjugates of integrin antagonist and ligand for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1999-620196/53.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       165 AA;
                                                                                                                                                                                                                                                                                                    (first entry)
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                                                                                                                                                       restenosis; antiviral; antifungal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 42;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 165;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
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0,

07-APR-1999;

99WO-US04296

24-FEB-2000.

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В
                                                                                                                                                                                                                                                                                                                                                                                          Qy
                                                                                                                                                                                                                                                                AAY44828
                                                                                                                                                                                                                                                                                  RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
               Hybrid interferon-alpha protein; HY-3; IFN-alpha; antiviral; antiproliferative; influenza; hepatitis B; cell growth regulation; tumour; cancer; osteogenic sarcoma; multiple myeloma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           migration and restenosis in a mammal. They are also useful as antivital, antifungal and antibacterial agents. pmON20433 is a modified version of pmON20405 (See AA293035) such that the amino terminus of interferon alpha A/D is Met-Cys-IFN alpha A/D as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              these properties. They can be used for inhibiting elevated levels of tumor antigens, inhibiting the proliferation of tumor cells and inhibiting tumor growth. The bloconjugates can also be used for treating e.g. osteoporosis, humoral hypercalcemia of malignancy,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    activity when compared to a single factor or having improved half-life or decreased adverse side effects, or a combination of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             chronic myelogenous leukaemia, malignant melanoma and Karposi's sarcoma. Multi-functional bioconjugates comprising both a_vb_3 antagonists and interferon alpha 2b can exhibit greater biological
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (angiogenesis) in tumours. The a_vb_3 integrin is also known to play a role in tumour metastasis, neoplasia, osteoporosis, paget's disease, retinopathy, arthritis, periodontal disease, psoriasis and smooth muscle cell migration. Interferon alpha is a family of proteins which possess complex antiviral, antineoplastic and inmunomodulating activities. Interferon alpha is effective against a variety of cancers including hairy cell leukaemia,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bioconjugates comprising one or more a_vb_3 antagonist moieties coupled to a peptide or polypeptide having anti-angiogenic properties can be used for treating a human patient with an angiogenesis-mediated disease, e.g. cancer, arthritis, or macular degeneration. The a_vb_3 integrin is normally associated with endothelial cells but can promote the formation of blood vessels (angiogenesis) in tumours. The a_vb_3 integrin is also known to be a contracted to the contraction of the contra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 13; Page 111; 123pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New bioconjugates comprising an avb3 antagonist and a metastatic associated receptor ligand, useful for treating cancer and other anglogenic diseases, or as antiviral, antifungal or antibacterial
                                                                                                                                                                                                                                         AAY44828 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                     18-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           opposed to Met-Ala-Cys-IFN alpha A/D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 arthritis, including rheumatoid arthritis, periodontal disease, psoriasis, thrombosis, angina, atherosclerosis, smooth muscle cell
                                                                                                      Hybrid interferon fusion protein HY-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Paget's disease, retinopathy including diabetic retinopathy,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-PSDB; AAZ93036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fok KF, Tjoeng FS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (SEAR ) SEARLE & CO G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                 130 ltekkysp 137
                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
les 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                            1 LTEKKYSP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000-205894/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                165
                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0096442.
                                                                                                                                                                                                                                         Protein; 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 42;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21; Length 165;
                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAY44976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                   Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
Synthetic.
                    Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB; AAZ50311.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         06-JUL-1999;
                                                             Region
                                                                                                                                                   Synthetic
                                                                                                                                                                                                                osteogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                        23-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Zoon KC, Hu R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (USSH ) US DEPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200006735-A1
                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 130 ltekkysp 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-FEB-2000
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Best Local Similarity
Matches 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present sequence is hybrid interferon fusion protein HY-3, comprising IRN-alpha 2c (amino acid residues 96-166) and IFN-alpha2la (amino acid residues 195). This is used as an antiviral and antiproliferative agent. Hybrid IFN-alpha (interferon-alpha) proteins a used in the treatment of viral diseases e.g. influenza, hepatitis B, or to regulate cell growth, especially tumour cell growth e.g. in tumour treatment and cancers like osteogenic sarcoma, multiple myeloma etc. They are transformed into host cells using vectors. Pharmaceutically
                                                                                                                                                                                                                                                                                                                           respiratory tract infection; viral zoonoses; arbovirus infection; Herpes simplex; Varicella zoster; keratitis; Hodgkin's disease; cancer; acute haemorrhagic conjunctivitis; hepatitis B; hepatitis C; lymphoma;
                                                                                                                                                                                                                                                                                                                                                                                                                   IFN-alpha2c; cytostatic; antiviral; antiproliferative; immunomodula
treatment; viral disease; encephalomyocarditis; influenza; rabies;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAY44976 standard; Protein; 165 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 8; Fig 5; 72pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  biological activity, useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New hybrid interferon-alpha polypeptides with interferon-alpha biological activity, useful to treat viral diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; Interferon alpha; HuIFNalpha; hybrid; HY-3; IFN-alpha2la; tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human hybrid interferon alpha,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        therapeutic administration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       acceptable carriers can be included with hybrid IFN-alpha for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000-183128/16
                                                                                                                                                                                                                                                                                                     sarcoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               165 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US15284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0094407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HEALTH & HUMAN SERVICES
                                                                                           Location/Qualifiers
1..95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bekisz JB,
                            76..166
                                                        /note= "Derived from IFN-alpha2c"
                                                                                                                                                                                                                                                                                                     multiple myeloma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
"Domain affecting antiproliferative activity"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hayes MP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 42;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HY-3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                     leukaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 165;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                            immunomodulator;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
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Region

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encephalomyocarditis, influenza, respiratory tract infections, rabies, viral zoonoses, arbovirus, Herpes simplex and Varicella zoster infections, keratitis, acute haemorrhagic conjunctivitis and hepatitis and C. It is also used for modulation of immune system, regulation of tumour growth and cancers such as osteogenic sarcoma, multiple myeloma, Hodgkin's disease, nodular, poorly differentiated lymphoma, acute hymphocytic leukaemia, acute myeloid leukaemia, breast carcinoma,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       antiproliferative activity than the parental interferons, IFN and IFN-alpha21a and other IFN-alpha hybrids. Hybrid IFNs are used for treatment of viral diseases, such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present amino acid sequence is the human hybrid interferon-alpha (HuIFNalpha) polypeptide HY-3, comprising a fusion of IFN-alpha2la and IFN-alpha2e. This hybrid IFN has antiviral, antiproliferative, cytostatic and immunomodulator activity. HY-3 exhibited a higher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel human hybrid interferons and their mutants, useful for treating viral infections such as rabies and hepatitis B and C, and cancers such as melanoma, multiple myeloma, and papilloma
 15-APR-1983;
                        25-APR-1983;
                                                24-NOV-1983
                                                                         WO8304053-A.
                                                                                                                         Mutation; human;
                                                                                                                                                 Synthetic human leukocyte
                                                                                                                                                                          10-SEP-1992
                                                                                                                                                                                                                          AAP30683 standard; Protein; 166 AA
                                                                                                                                                                                                                                                                                                                                                                                                                        melanoma, papilloma and nasopharyngeal carcinoma in humans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 10; Page 49-50; 66pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               as melanoma, multiple myeloma, and papilloma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200006596-A2
                                                                                                                                                                                                                                                                                    130 ltekkysp 137
                                                                                                                                                                                                                                                                                                                                     Local Similarity hes 8; Conserv
                                                                                                                                                                                                                                                                                                             1 LTEKKYSP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000-195259/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAZ50512
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hu R,
                                                                                                                                                                                                                                                                                                                                                                                                  165 AA;
                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                          (first entry)
83US-0483451.
                        83WO-US00605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0094407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US14749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  96..166
                                                                                                                          IFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bekisz JB,
                                                                                                                                                                                                                                                                                                                                                 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Derived
                                                                                                                                                 interferon subtype
                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hayes MP;
                                                                                                                                                                                                                                                                                                                                                 Score 42; DB Pred. No. 1.3;
                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      from IFN-alpha21a"
                                                                                                                                                                                                                                                                                                                                                           21;
                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                           Length 165;
                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IFN-alpha2c
                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                     0;
  덩
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAP30684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-DEC-1983;
21-SEP-1987;
01-JAN-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      encoded by a gene manufactured such that it it capable of dir
synthesis of the interferon in a selected host microorganism.
See also AAP30673-P30687.
 WO8304053-A.
                                                                                                                                                           Region
                                                                                                                                                                                    Region
                                                                                                                                                                                                                                                                                                                         Mutation;
                                                                                                                                                                                                                                                                                                                                                 Consensus
                                                                                                                                                                                                                                                                                                                                                                                                                        AAP30684 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 42; Page 84; 94pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alton NK, Peters MA,
                                    Region
                                                            Region
                                                                                     Regior
                                                                                                            Region
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                                                                                                                                                                                                                                     Region
                                                                                                                                                                                                                                                            Region
                                                                                                                                                                                                                                                                           Key
                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                                                                         10-SEP-1992
                                                                                                                                                                                                                                                                                                                                                                                                  AAP30684;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Construction of large structural genes - useful in human leukocyte interferon and analogues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-PSDB; AAN30318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (AMGE-) AMGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-MAY-1982;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (MOLE-) APPL MOLECULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   131 ltekkysp 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 LTEKKYSP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1983-833208/48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8; Conserv
                                                                                                                                                                                                                                                                                                                                                human leukocyte interferon #1.
                                                                                                                                                                                                                                                                                                                          human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 166 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               is that of human leukocyte interferon subtype {\tt F}, gene manufactured such that it it capable of directing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             82US-0375494.
83US-0560495.
87US-0099096.
90EP-0124236.
                                                                                                             /note=
96
                                    /note=
158
                                                            /note=
157
                                                                                     /note=
156
                                                                                                                                     90
                                                                                                                                                /note=
                                                                                                                                                                                                                                                            Location/Qualifiers 22
                        /note=
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                                                                                                                                                                                                  /note=
                                                                                                                                                                                                                          note=
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                                                                                                                                                                                                                                                                                                                                                                                                                        Protein; 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
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                                                                                                                                                                                                                                                "mutation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Stabinsky Y,
                        "mutation,
                                                                                                                                                 "mutation,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 42; DB 4
Pred. No. 1.3;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                         A
                                                                                                                         Asn
                                                                                                                                                                          Gln
                                                                                                                                                                                                  Glu
                         Phe ->
                                                  Ile ->
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                                                                                                                                                                                                                         Ala"
                         Leu"
                                                Asn
                                                                          Thr"
                                                                                                 Leu"
                                                                                                                         Tyr"
                                                                                                                                                 Tyr"
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                                                                                                                                                                                                  Asp"
                                                                                                                                                                                                                                                Arg"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 166;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       prepn.
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(USSH)

N-PSDB;

Synthetic

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Query Match Best Local S Matches 8

Sequence

AAP30683 RESULT

16

AAP30683;

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AAP30685
                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-MAY-1982;
12-DEC-1983;
21-SEP-1987;
01-JAN-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (AMGE-)
(AMGE-)
(MOLE-)
                                                                                 Region
                                                                                                                                                                                                                                                                                                                                                                              The sequence is that of a consensus human leukocyte interferon, encoded by a gene manufactured such that it it capable of directing synthesis of the interferon in a selected host microorganism. See also AAP30673-P30687.
Region
                 Region
                                 Region
                                                 Region
                                                                 Region
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                                                                                                                  Region
                                                                                                                                   Region
                                                                                                                                            Key
                                                                                                                                                           Synthetic
                                                                                                                                                                           Mutation; human; IFN.
                                                                                                                                                                                             Consensus
                                                                                                                                                                                                             10-SEP-1992
                                                                                                                                                                                                                              AAP30685;
                                                                                                                                                                                                                                               AAP30685 standard; Protein; 166 AA
                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 38; Page 84; 94pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                        Construction of large structural genes - useful in prepn. human leukocyte interferon and analogues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1983-833208/48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24-NOV-1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-APR-1983;
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                                                                                                                                                                                                                                                                                     1 LTEKKYSP 8
|||||||
| 131 ltekkysp 138
                                                                                                                                                                                                                                                                                                                       Local Similarity
nes 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NK,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPL MOLECULAR GENE
                                                                                                                                                                                            human leukocyte interferon #2
                                                                                                                                                                                                                                                                                                                                                                166 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Peters MA,
                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  83US-0483451.
82US-0375494.
83US-0560495.
87US-0099096.
90EP-0124236.
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               /note=
                                /note=
86
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79
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78
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                                                                                                                                    Location/Qualifiers
                                                                                          /note=
                                                                                                          /note=
                                                                                                                                                                                                                                                                                                                              100.0%;
         "mutation,
                        "mutation,
                                                                                          "mutation,
                                                                                                          "mutation, Ile -> Met"
                                                        "mutation,
                                                                          "mutation,
                                                                                                                          "mutation,
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                                         "mutation,
                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                      Score 42; DB 4; Pred. No. 1.3; Mismatches (
                        Ser
         Asn
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                                         Gln
                                                        Glu ->
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        -> Tyr'
                        Tyr"
                                         Glu"
                                                        Asp"
                                                                          Ala"
                                                                                          Arg"
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                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                     Length 166;
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                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                      0;
 RESULT 19
AAP30686
                                                                                                                                                                                                                                                                                       Вb
                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                            Query Match 100
Best Local Similarity 100
Matches 8; Conservative
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06-MAY-1982;
12-DEC-1983;
21-SEP-1987;
                                      Region
                                                                                                                                                                                                                                                                                                     The sequence is that of a consensus human leukocyte interferon, encoded by a gene manufactured such that it it capable of directing synthesis of the interferon in a selected host microorganism. See also AAP30673-P30687.
       Region
                       Region
                                                                                 Synthetic
                                                                                                 Mutation; human; IFN
                                                                                                                 Consensus
                                                                                                                                  10-SEP-1992
                                                                                                                                                                   AAP30686 standard; Protein; 166 AA
                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                             Claim 38; Page 84; 94pp; English.
                                                                                                                                                                                                                                                                                                                                                              Construction of large structural genes - useful in human leukocyte interferon and analogues
                                                                                                                                                                                                                                                                                                                                                                                                       Alton NK, Peters MA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JAN-1990;
                                                                                                                                                   AAP30686;
                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1983-833208/48.
                                                                                                                                                                                                                                                                                                                                                                                                                               (AMGE-) AMGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-APR-1983;
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| 131 || tekkysp || 138
                                                                                                                                                                                                                                                                                                                                                                                                                       (MOLE-) APPL MOLECULAR GENE
                                                                                                                                                                                                                            1 LTEKKYSP 8
                                                                                                                 human leukocyte
                                                                                                                                                                                                                                                                                      166 AA;
                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                        INC.
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82US-0375494.
83US-0560495.
87US-0099096.
90EP-0124236.
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79
/note=
                        /note=
78
                                        /note=
76
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157
/note=
158
                                                        Location/Qualifiers 22
                /note=
                                                                                                                                                                                                                                            100.0%; Score 42; D: 100.0%; Pred. No. 1. tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                       Stabinsky Y,
"mutation, Gln ->
               "mutation,
                               "mutation,
                                                "mutation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "mutation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "mutation,
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                                                                                                                  interferon
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                Glu ->
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                                Thr ->
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                                                                                                                  #3
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                               Ala"
Glu"
                Asp"
                                                Arg"
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Gaps

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RESULT :
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Best Local S
Matches 8
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12-DEC-1983;
21-SEP-1987;
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(AMGE-)
(MOLE-)
                                                                                                                                                                                                                                     The sequence is that of a consensus human leukocyte interferon, encoded by a gene manufactured such that it it capable of directing synthesis of the interferon in a selected host microorganism. See also AAP30673-P30687.
Region
          Key
                          Interferon alpha-1; hybrid protein;
                                           Interferon alpha-1.
                                                             24-NOV-1991
                                                                               AAP50229;
                                                                                                AAP50229
                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                Claim 38; Page 84; 94pp; English.
                                                                                                                                                                                                                                                                                                 Construction of large structural genes - human leukocyte interferon and analogues
                                                                                                                                                                                                                                                                                                                            WPI; 1983-833208/48
                                                                                                                                                                                                                                                                                                                                            Alton NK,
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                                                                                                                                         131 ltekkysp 138
                                                                                                                20
                                                                                                                                                          <u>-</u>-
                                                                                                                                                  LTEKKYSP 8
                                                                                                                                                                                                                                                                                                                                                           ) AMGEN INC.
) AMGEN.
) APPL MOLECU
                                                                                                                                                                         h 100.0%;
Similarity 100.0%;
8; Conservative (
                                                                                               standard; Protein; 166 AA
                                                                                                                                                                                                                                                                                                                                           Peters MA,
                                                                                                                                                                                                                      166 AA;
                                                                                                                                                                                                                                                                                                                                                             MOLECULAR
                                                             (first
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82US-0375494.
83US-0560495.
87US-0099096.
90EP-0124236.
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96
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/note=
90
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121
Location/Qualifiers 63..66
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157
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156
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114
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158
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                                                            entry)
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                                                                                                                                                                           0;
                                                                                                                                                                                   Score 42;
Pred. No.
                                                                                                                                                                            Mismatches
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                           crossover region.
                                                                                                                                                                                                                                                                                                                                            Snitman DL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tyr"
                                                                                                                                                                                                                                                                                                         useful
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                                                                                                                                                                                          4;
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                                                                                                                                                                                                                                                                                                         in
                                                                                                                                                                                           Length 166;
                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                         prepn.
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                                                                                                                                                                           Gaps
                                                                                                                                                                           0;
RESULT 2
AAP60828
ID AAP6
XX
AC AAP6
XX
DT 26-J
XX
DE Sequ
XX
Hepa
                                                                                                                                 QУ
                                                                                                                                                                                            В
                                                                                                                                                 Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 8; Conservative (
                                                                                                                                                                                                          The DNA encoding interferon alpha-1 may be fused to a second coding sequence, eg for animal or human alpha, beta or gamma-interferons, lymphokines, foot-and-mouth diesase antigens, to form a hybrid DNA. The DNA must be fused to the second DNA sequence in the same reading frame to maintain a constant reading frame through a crossover region common to both sequences. The hybrid sequences are obtd. Without the need for chance availability of restriction sites to be combined. Sequential deletions to give prods. With modified properties, activity and specificity are reliable.
                                                                                                                                                                                                                                                                                                                  New
of
Hepatitis B therapy; Kerato-conjunctivitis epidemica;
                  Sequence of
                                                    AAP60828;
                                                                      AAP60828 standard; Protein; 166
                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                 Disclosure; Fig. 6A-C; 47pp;
                                                                                                                                                                                                                                                                                                                                            WPI; 1985-117654/20.
N-PSDB; AAN50273.
                                                                                                                                                                                                                                                                                                                                                                     Weissmann C,
                                                                                                                                                                                                                                                                                                                                                                                                       10-JUN-1983;
                                                                                                                                                                                                                                                                                                                                                                                                                        05-JUN-1984;
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                                   26-JUL-1991
                                                                                                                                                                                                                                                                                                                                                                                      (BIOJ ) BIOGEN NV.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Region
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                                                                                                                131 ltekkysp 138
                                                                                       21
                                                                                                                                 1 LTEKKYSP
                                                                                                                                                                                                                                                                                                                  hybrid DNA sequences and hybrid polypeptide(s) - interferon(s), lymphokines, viral antigens, etc.
                                                                                                                                                                                            166 AA;
                  interferon-alpha
                                   (first entry)
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                                                                                                                                                                                                                                                                                                                                                                     Weber
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88..101
/label=
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88..95
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153..154
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133..151
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155..161
/label= crossover
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                                                                                                                                                  0,
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                                                                                                                                                 Score 42; DB Pred. No. 1.3; Mismatches
                                                                                                                                                                                                                                                                                                 English.
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                                                                                                                                                  0;
                                                                                                                                                                  Length 166;
                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                           useful in prodn.
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Gaps

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RESULT 22
AAP60100
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
neoplastic agents
   New hybrid lymphoblastoid interferon(s) - useful as antiviral and
                                                                                                            05-JUN-1986;
                                                                                                                                                                                                                      Sequence of hybrid human lymphoblastoid interferons (LyIFN) alpha-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA sequence of interferon alpha one - and recombined plasmid and transformant, giving peptide for use in treating viral diseases e.g. hepatitis and kerato conjunctivitis epidemica
                             WPI; 1986-333879/51.
                                                                                         11-JUN-1985;
                                                                                                                                  17-DEC-1986.
                                                                                                                                                      EP205404-A.
                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                           Antiviral agent; neoplastic agent; therapy
                                                                                                                                                                                                                                                07-AUG-1991
                                                                                                                                                                                                                                                                     AAP60100;
                                                                                                                                                                                                                                                                                     AAP60100 standard; Protein; 166
                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Known interferon-alpha one has aspartic acid as AA 35 and the DNA which codes for this AA is GAC. The interferon-1 one of the invention has asparagine as AA 35 and the DNA which codes for this
                                                                     (CIBA ) CIBA GEIGY AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           AA is AAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 2-3; 42pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Yamauchi TY,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GREC ) GREEN CROSS CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08-FEB-1985;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-FEB-1986;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      viral disease
                                                                                                                                                                                                                                                                                                                                          131 ltekkysp 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                              1 LTEKKYSP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1986-219704/34.
                                                                                                                                                                                                                                                                                                                                                                                   8
                                               Hinnen A,
                                                                                                                                                                                                                                                                                                                                                                                                                                      166
                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                  B1B2D3B4.
                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Masaki AH,
                                                                                         85GB-0014726
                                                                                                                                                                                                                                                                                                                                                                                                                                     Α,
                                                                                                              86EP-0810243.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                85JP-0024050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   86DE-3603958.
                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
                                               Meister A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nagai MY,
                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                           Score 42; DB 7; Length 166; Pred. No. 1.3;
                                                                                                                                                                                                                                                                                      ΑA
                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                               Grutter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Arimura HT,
                                               MΚ,
                                               Alkan S;
                                                                                                                                                                                                                                                                                                                                                                                 0;
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Best Local Similarity
----hes 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            XXCCCCCCCXXX
XXCCCCCCCCXXX
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Best Local Similarity
Matches 8; Conserv
                                                   Query Match
                                                                                                                                                                 of 2-4 sub-sequences corresp. in AA identity and number to sub-
sequences of LyIFN-alpha-2 and LYIFN-alpha-3. In particular, the
claimed polypeptides have the As sequence of: (i) AAS 1-150 of
-alpha-2 and 151-166 of -alpha-3; (ii) AAS 1-92 of -alpha-2, 93-150
of -alpha-3 and 151-166 of -alpha-2 or (iii) AAS 1-60 of -alpha-2,
61-92 of -alpha-3, 93-150 of -alpha 2 or -alpha-3 and 151-166 of
-alpha-2 or -alpha-3. AAP60099-P60104 are specifically claimed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The hybrid polypeptides of the invention have an AA sequence composed of 2-4 sub-sequences corresp. in AA identity and number to sub-sequences of LyIEN-alpha-2 and LyIEN-alpha-3. In particular, the claimed polypeptides have the AA sequence of: (i) AAs 1-150 of -alpha-2 and 151-166 of -alpha-3; (ii) AAs 1-92 of -alpha-2, 93-150 of -alpha-3 and 151-166 of -alpha-2 or (iii) AAs 1-60 of -alpha-2, 61-92 of -alpha-3, 93-150 of -alpha-2 or -alpha-3 and 151-166 of -alpha-2 or -alpha-3 and 151-166 of -alpha-3 and 151-166 of -alpha-3 or -alpha-3 and 151-166 of -alpha-3 and 151-166 of -alpha-3 and -
                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                      The hybrid polypeptides of the invention have an AA sequence composed
                                                                                                                                                                                                                                                                                                                                                                                                                                                       New hybrid lymphoblastoid interferon(s) - neoplastic agents.
                                                                                                                                                                                                                                                                                                                                                                                                         Claim 5; Page 73; 82pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Meyer F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1986-333879/51.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Antiviral agent; neoplastic agent; therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and alpha-3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence of hybrid human lymphoblastoid interferons
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-AUG-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAP60102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAP60102 standard; Protein; 166 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (CIBA ) CIBA GEIGY AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 3; Page 72; 82pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       131 ltekkysp 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 LTEKKYSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hinnen A,
                                                                                                                           166 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          166 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              85GB-0014726
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                     100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                     Score 42;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 42; DB Pred. No. 1.3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Grutter MK,
                     1.3;
                                             DB 7;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                             Length 166;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 166;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    as antiviral and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (LyIFN) alpha-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
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Conservative

0;

Mismatches

0;

Indels

0

Gaps

B 68

131

1 LTEKKYSP 8 ||||||| 1 ltekkysp 138

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RESULT 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The hybrid polypeptides of the invention have an AA sequence composed of 2-4 sub-sequences corresp. in AA identity and number to subsequences of LyIFN-alpha-2 and LYIFN-alpha-3. In particular, the claimed polypeptides have the AA sequence of: (i) AAS 1-150 of -alpha-2 and 151-166 of -alpha-3; (ii) AAS 1-92 of -alpha-2, 93-150 of -alpha-3 and 151-166 of -alpha-2 or (iii) AAS 1-60 of -alpha-2, 61-92 of -alpha-3, 93-150 of -alpha-2 or -alpha-3 and 151-166 of -alpha-2 or -alpha-3 and 151-166 of -alpha-2 or -alpha-3 and 151-166 of -alpha-3 of -alpha-3 and 151-166 of -alpha-3 or -alpha-3 and -alpha
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence of hybrid human lymphoblastoid interferons (LyIFN) alpha-2 and alpha-3, BlD2D3D4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-AUG-1991
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 6; Page 73; 82pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1986-333879/51.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Meyer F, Hinnen A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-DEC-1986
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                                                                                                                                                                           AAP60304;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New hybrid lymphoblastoid interferon(s) - useful as antiviral and neoplastic agents.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (CIBA ) CIBA GEIGY AG
             Antiviral; antitumour
                                                                     Sequence of interferon (IFN) alpha S51B10
                                                                                                                        23-AUG-1991
                                                                                                                                                                                                                            AAP60304 standard; Protein; 166 AA
                                                                                                                                                                                                                                                                                                                                                            131 ltekkysp 138
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           166 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                        (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 42; DB 7; Pred. No. 1.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Grutter MK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alkan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 166;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
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Query Match
Best Local Similarity
".~+~hes 8; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                            IFN alpha-S51B10 and IFN alpha-S17H9 have antiviral and antitumour activities. Dosage is 1,000,000-10,000,000 units per day. IFNs alphaped from Ball-1 cells induced with Sendai virus by known recombinant DNA techniques.
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N-PSDB; AAN60236.
                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Fig 2; 37pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New interferon alpha S51B10 and alpha S17H9 - prepd. by DNA recombinant techniques
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Teraoka H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (SHIO ) SHIONOGI KK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-AUG-1984;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
131 ltekkysp 138
                                                                       1 LTEKKYSP 8
                                                                                                                                                                                                                                                                                                                                        166 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sato K,
                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84JP-0179105
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                                                                                                                                                      0,
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Pred. No. 1
                                                                                                                                                      Mismatches
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ω
                                                                                                                                                          0;
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                                                                                                                                                          Indels
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stic10%
stic10% tail pirlfind
                                                                                                                                                        RRNZA2 ck: 6550 len: 2,165 ! genome polyprotein - human respiratory sync[7m--More--(2%) [m [Kstic10%]
                     Databases searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 \ L(T,R,Q,M,E,G)(E,R,D,L,I,A)(K,R,N,M,S,E)(K,R,D,N,S)(Y,H)(S,R,D,N,A)(P,R,D,L)
NBRF, Release 68.0, Released on 31Mar2001, Formatted on 26Jun2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           228: TFVVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            228: TFVVP
                                                                                                                                                                                                                                                                                                                                                                                         186: CPVLK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   213: TFVVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21: TFVVP
                                                                                                                                                                                                                                                  35: LNNVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OXCKX4 ck: 4824 len: 709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OXCKP2 ck: 4180 len: 724 ! acyl-CoA oxidase (EC 1.3.3.6) PXP2, peroxi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OXCKAX ck: 6643 len: 502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OXCKPM ck: 8367 len: 709 ! acyl-CoA oxidase (EC 1.3.3.6) PXP4, peroxis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OXCKX5 ck: 3893 len: 662 ! acyl-CoA oxidase (EC 1.3.3.6) POX5, peroxis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S66044 ck: 714 len: 217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OXCKX ck: 2978 len: 709 | acyl-CoA oxidase (EC 1.3.3.6) AOx, peroxiso
                                                                                                                                                                                                                                                                                                                               A64107 ck: 3967 len: 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           L(T,R,Q,M,E,G)(E,R,D,L,I,A)(K,R,N,M,S,E)(K,R,D,N,S)(Y,H)(S,R,D,N,L(R)(D)(S)(R)(H)(S)(L)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                L(T,R,Q,M,E,G)(E,R,D,L,I,A)(K,R,N,M,S,E)(K,R,D,N,S)(Y,H)(S,R,D,N,E)(L,R)(D)(S)(N)(H)(D)(L)   L(R)(D)(S)(N)(H)(D)(L)   LRDSNHDL 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        L(T,R,Q,M,E,G)(E,R,D,L,I,A)(K,R,N,M,S,E)(K,R,D,N,S)(Y,H)(S,R,D,N,E)(E,R)(D)(S)(N)(H)(D)(L)
L(R)(D)(S)(N)(H)(D)(L)
LRDSNHDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     L(T,R,Q,M,E,G)(E,R,D,L,I,A)(K,R,N,M,S,E)(K,R,D,N,S)(Y,H)(S,R,D,N,E,G)(E,R)(D)(S)(N)(H)(D)(L)
L(R)(D)(S)(N)(H)(D)(L)
L(RD)(RDSNHDL
                                                                                                                                                                                                                                                                                                                                                                                                               ! acyl-CoA oxidase (EC 1.3.3.6) POX4, peroxis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ! acyl-CoA oxidase (EC 1.3.3.6) POX4-2, pero
                                                                                                                                                                                                                                                                                                                                  ! DNA-directed DNA polymerase (EC 2.7.7.7) I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ! deoxypurine kinase (EC 2.7.1.-) yaaF - Baci
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Total finds: 344
Total length: 76,174,552
Total sequences: 219,241
CPU time: 04:37.90
sticl0%
script done on Tue Jan 15 10:27:24 2002
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Script started on Tue Jan 15 10:31:55 2002 stic10% m swp.find i FINDPATTERNS on swp:* allowing 0 mismatches
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stic10%
stic10% tail swp.find
Databases searched:
SWISS-PROT, Release 39.2, Released on 24Aug2001, Formatted on 27Aug2001
SPTREMBL, Release 17.0, Released on 1Jun2001, Formatted on 26Jun2001
                                                                                                                                                                                              CAO1_CANTR ck: 2901 len: 661 [7m--More--(1%) [m [Kstic10%]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 L(T,R,Q,M,E,G)(E,R,D,L,I,A)(K,R,N,M,S,E)(K,R,D,N,S)(Y,H)(S,R,D,N,A)(P,R,D,L)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1,118: VKGDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AIDA_ECOLI ck: 8339 len: 1,286 ! Q03155 escherichia coli. adhesin aida-i pro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APE2_AERPE ck: 3114 len: 167 ! 073943 aeropyrum pernix. homing endonucleas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BUD6_YEAST ck: 5257 len: 788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BIOB_SCHPO ck: 8853 len: 363
                                                                                                                                                                                                                                                                                                                                                                                                                            CADE_DROME ck: 2829 len: 1,507 ! Q24298 drosophila melanogaster (fruit fly)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AMY_BUTFI ck: 4687 len: 976 ! P30269 butyrivibrio fibrisolvens. alpha-am
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ASO_CUCPM ck: 1447 len: 552
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                                                                                                                                                                                                                                                                                                                 753: GHVVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ck: 5058 len: 297 ! Q9zls9 cavia porcellus (guinea pig). adreno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                L(T,R,Q,M,E,G)(E,R,D,L,I,A)(K,R,N,M,S,E)(K,R,D,N,S)(Y,H)(S,R,D,N,
L(M)(A)(R)(S)(H)(A)(R)
LMARSHAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 L(T,R,Q,M,E,G)(E,R,D,L,I,A)(K,R,N,M,S,E)(K,R,D,N,S)(Y,H)(S,R,D,N,
L(E)(E)(E)(K)(Y)(N)(L)
LEEEKYNL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \begin{array}{l} L(T,R,Q,M,E,G)(E,R,D,L,I,A)(K,R,N,M,S,E)(K,R,D,N,S)(Y,H)(S,R,D,N,L(G)(E)(K)(K)(H)(D)(R) \\ L(G)(E)(K)(K)(H)(D)(R) \end{array} 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 L(T,R,Q,M,E,G)(E,R,D,L,I,A)(K,R,N,M,S,E)(K,R,D,N,S)(Y,H)(S,R,D,N,
L(G)(A)(M)(K)(Y)(N)(L)
LGAMKYNL
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L(T)(R)(M)(K)(Y)(R)(R)
LTRMKYRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             L(T,R,Q,M,E,G)(E,R,D,L,I,A)(K,R,N,M,S,E)(K,R,D,N,S)(Y,H)(S,R,D,N,L)(E)(A)(N)(K)(H)(D)(L)
                                                                                                                                                                                                                                                                                                                                            L(T,R,Q,M,E,G)(E,R,D,L,I,A)(K,R,N,M,S,E)(K,R,D,N,S)(Y,H)(S,R,D,N,L,Q)(A)(N)(D)(Y)(D)(D)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 059778 schizosaccharomyces pombe (fission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; p37064 cucurbita pepo var. melopepo (zucch
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ! P41697 saccharomyces cerevisiae (baker's ye
                                                                                                                                                                                                                                 ! P08790 candida tropicalis (yeast). acyl-coe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LEANKHOL
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Total finds: 654
Total length: 182,937,156
Total sequences: 573,564
CPU time: 11:27.72
stic10%
script done on Tue Jan 15,10:32:11 2002
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IntelliGenetics

Release

Quick User-directed Expression Search Tool

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Script started on Tue Jan

15 10:32:38 2002

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Selected sequence key seq2 (AA) ID seq2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Format Options:
                                                                                                                                                                                                                                                                                                                                                 1 match found in sequence:
 PS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Note position of hit Display full annotations
                                                                                                                                                                                                                                                                                                                                      290186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Report key used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nucleic acid code matching Find non-matching hits only
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Data bank : A-GeneSeq 35.2, all entries
                                                                                                                                                                                                                                                                                                                    0186; Hybrid alpha-interferon. from "A-GeneSeq 35.2")
                                                                                                                                                                                                                                                                                                                                                                                                         Time
                                                                                                                                                                                                                                                                                                                                                                                           Notify at end of run
                                                                                                                                                                   region
region
                                                                                                                                                                                                                         Hybrid alpha-interferon; alpha-D gene; alpha-B gene; muramylpeptide; Hybrid; alpha-interferon; alpha-D gene; alpha-B gene; muramylpeptide; human; synthetic; herpes simplex virus 1 and 2; tumours; Lewis lung carcinoma; B16-BL6 melanoma; synergistic.
                                                                                                                                                                                                                                                                                                        P90186 standard; peptide; 166 AA.
                                                                                                                                                                                                                                                                               14-DEC-1989 (first entry)
Synergistic antiviral compsn. - contg. hybrid alpha interferon and muramyl peptide esp. active against herpes simplex. Disclosure; page 2; 13pp; English.
                                                                                                                                                                                               Key
                                                                                                                                                                                                            Synthetic.
                                          Gangemi JD, Hochkeppel HK;
WPI; 89-243490/34.
                                                                                More--(0%) [m PD 23-2
06-FEB-1989; 810100.
13-FEB-1988; GB-003365.
                                                                                                                         region
EP-329609-A
                                                                     (CIBA) Ciba Geigy AG.
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                                                                                                                                                                                                                                                                                                                                                                                                        to start comparison
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            context
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or n or a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Outline of search "agen" --
                                                                                                                                                    1..60
61..92
93..150
                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                          151..166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Output Parameters --
                                                                                                              23-AUG-1989.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Run Parameters --
                                                                                                                                                                                                                                                                                                                                                                                              No No
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Yes
Yes
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and annotations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  file
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Yes
No
Yes
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1 match found in sequence:
 p90189; Hybrid alpha-interferon.
 (from "A-GeneSeq 35.2")

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106
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                                                                                                                                                                                                                match found in sequence:
p90188; Hybrid alpha-interferon.
(from "A-GeneSeq 35.2")
                                                                                                                                                                                     Found
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                                                                                                                                                                                                                                                                     hybrid BIDD3B4 which correspond, in order, to the regions specified starting with B1 (amino acids 1-60 of interferon-alpha-B). The hybrids (p90185-90) act synergistically, in a compsn. with muramyl peptide, to (More-(1%) [m. CC treat virus infections in human and veterinary medicine, simplex virus 1 and 2. They also reduce development of metastases from some tumours, eg B16-BL6 melanoma or Lewis lung carcinoma. Sequence 166 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synergistic antiviral compsn. - contg. hybrid alpha interferon and muramyl peptide esp. active against herpes simplex. Disclosure; page 2; 13pp; English hybrid alpha-interferon consisting of 4 fragments of human hybrid alpha-interferon consisting of 4 fragments of alpha-D. Tymphoblastid or leukocyte interferons-alpha-B and -alpha-D.
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11 A; 11 R; 5 N; 11 D; 0 B;
9 I; 21 L; 11 K; 5 M; 10 F;
using 'seq2' (09-424080.key)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hybrid; alpha-interferon; alpha-D gene; alpha-B gene; muramylpeptide; human; synthetic; herpes simplex virus 1 and 2; tumours; Lewis lung carcinoma; B16-BL6 melanoma; synergistic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hybrid alpha-interferon.
                                                                                                                                                                                  11 A; 11 R; 5 N;
9 I; 20 L; 12 K;
1 using 'seq2' (09-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gangemi JD, Hochkeppel HK; WPI; 89-243490/34.
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06-FEB-1989;
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131 138
vgetplmnadsilavkkyfrritlyltekkyspcawevvraeimrsfslsinlqkrlk
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                                                                                                                                                                                                                      11 D;
5 M;
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                                                                                                                                                                                                                          5 C;
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13 S;
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12 S;
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                                                                                                                                                                                                                                14 E;
7 T;
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                                                                                                                                                                                                                                    2 W;
                                                                                                                                                                                                                                                           0 Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; 2 G; 3 H;
4 Y; 6 V;
                                                                                                                                                                                                                                    4 Y;
                                                                                                                                                                                                                                                              2 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This is
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A CCC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             match found in sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                            (from "A-GeneSeq 35.2")
Feline interferon gene, protein and precursor - used for obtaining antiviral agents and antitumour agents for cats.

Claim 32; page 10 and fig 7; 18pp; English.

The sequence is the peptide derived from the feline interferon gene (see N90185). The peptide may have an attached sugar chain. Feline interferon can be used as an antiviral and antitumour agent for cats. It may be used to treat, eg FLTV, feline leukaemia, feline viral rhinotracheltis, feline caliciviral disease and feline infectious peritonitis. When not carrying a sugar chain, the interferon has specific activity greater than 100000000 U/mg affel mol. wt. 20000 (suitable host cell is E.coli K12). With a
                                                                                                                                                                                                                                          27-DEC-1988; 121737.
29-DEC-1987; JP-336297.
(TORA) Toray Industries Inc.
                                                                                                                                                                                                           Yanai A, Nakamura N, Matsuda
WPI; 89-194216/27.
                                                                                                                                                                                                                                                                                              EP-322870-A.
05-JUL-1987.
                                                                                                                                                                                                                                                                                                                                  Feline interferon; peptide; antiviral agent; antitumour agent.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hybrid alpha-interferon consisting of 4 fragments of human lymphoblastoid or leukocyte interferons-alpha-B and -alpha-D. This is hybrid BID2D3D4 which correspond, in order, to the regions specified starting with B1 (amino acids 1-60 of interferon-alpha-B). The hybrids (P90185-90) act synergistically, in a compsn. with muramyl peptide, to treat virus infections in human and veterinary medicine, esp. herpes some tumours, eg B16-B16 melanoma or Lewis lung carcinoma.
                                                                                                                                                                                                 N-PSDB; N90185
                                                                                                                                                                                                                                                                                                                                                            Feline interferon
                                                                                                                                                                                                                                                                                                                                                                               1-NOV-1989
                                                                                                                                                                                                                                                                                                                                                                                                P90398
                                                                                                                                                                                                                                                                                                                                                                                                       P90398 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -yretylstic anciviral compsn. - conty, hybrid alpha interferon
and muramyl peptide esp. active against herpes simplex.
Disclosure, page 3; 13pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gangemi JD, Hochke WPI; 89-243490/34.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-AUG-1989.
06-FEB-1989; 810100.
13-FEB-1988; GB-003365.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synergistic antiviral compsn.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 166 AA;
11 A; 13 R; 5 N; 11 D; 0 B; 6 C; 1
8 I; 21 L; 9 K; 5 M; 9 F; 5 P; 11
using 'seq2' (09-424080.key)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              carcinoma; B16-BL6 melanoma; synergistic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hybrid; alpha-Interferon; alpha-D gene; alpha-B gene; muramylpeptide; human; synthetic; herpes simplex virus 1 and 2; tumours; Lewis lung
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (CIBA) Ciba Geigy AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EP-329609-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hybrid alpha-interferon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P90189 standard; peptide; 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-DEC-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    vgetplmnadsilavkkyfrritlyltekkyspcawevvraeimrslslstnlqerlr
131 138
                                                                                                                                                                                                                                                                                                                                                                                                                                            Feline interferon
                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hochkeppel HK;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61..92
93..150
151..166
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u></u>
                                                                                                                                                                                                                                                                                                                                                                                                           171 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12 Q;
L1 S; E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15 E; 0
3 T; 2 W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0 Z;
W; 4
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Y; 6 V;
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ID P90399; standard; protein; 194 AC P90399; DT 1-NOV-1989 (first entry) DE Feline interferon peptide; ant S Feline interferon; peptide; ant OS Feline interferon; peptide; ant OS Feline PN EP-322870-A. PD 05-JUL-1989; 121737. PR 29-DEC-1987; JP-336297. PA (TORA) Toray Industries Inc. [7m--More-(38) [m pr Yanai A, Na] DR WPI; 89-194216/27 Yanai A, Na] DR WPI; 89-194216/27 PA (TORA) Toray Industries and antitumour PS Feline interferon gene, protein PT Feline interferon gene foliam 37; page 10 and fig 8; 18; C The sequence is the peptide sequence 194 AA; SQ 16 A; 13 R; 7 N; 8 D; 0 B; SQ 16 A; 13 R; 7 N; 8 D; 0 B; SQ 15 I; 27 L; 7 K; 3 M; 9 F; 7 Found using 'seq2' (09-424080.key)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 match found in sequence: P80046; Sequence of human interferon alpha-1 (huIFN alpha-1) encoded (from "A-GeneSeq 35.2")
AC DE CONTROL OF CONTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 match found in sequence:
P90399; Feline interferon
   (from "A-GeneSeq 35.2")
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               110
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                                                                                                                        15-JUL-1985;
19-JAN-1983;
15-JUL-1985;
                                                                                                                                                                                                                                                                                                            Alpha-beta hybrid interferon; multi-class hybrid interferon; antitumour; antiviral; therapy.
                                                                                                                                                                                                                                                              US4758428-A.
                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                           Sequence of human interferon alpha-1 (huIFN alpha-1) encoded HindIII/EcoRI fragment of pGW5
                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-NOV-1990 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antiviral agents and antitumour agents for cats. Claim 37; page 10 and fig 8; 18pp; English. The sequence is the peptide sequence of feline in precursor gene (see N90186). See also N90185 and Sequence 194 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1
13 A; 13 R;
5 I; 22 L;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P80046;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P80046 standard; protein; 167 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27-DEC-1988; 121737.
29-DEC-1987; JP-336297.
(TORA) Toray Industries Inc.
More--(3%) [m PI Yanai A, Nakamura N, Matsuda
WPI; 89-194216/27.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; N90186. Feline interferon gene, protein and precursor
                                                                                                                                                                                                                                 L9-JUL-1988.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Feline interferon; peptide; antiviral agent; antitumour agent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sugar chain, it has same activity and mol. wt. 24000 (suitable host cells are COS 1, COS 7 and COS-DUK-XB-1). See also N90186 and P90399. Sequence 171 AA;

13 A; 13 R; 6 N; 8 D; 0 B; 6 C; 12 Q; 14 E; 0 Z; 6 G; 5 I; 2 Z; 7 K; 2 M; 8 F; 6 P; 14 S; 10 T; 2 W; 5 Y;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              apltnedihpedsilrnyfqrlslylqekkyspcaweivraeimrslyysstalqkrl
158 165
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                                                                                    -1985; US-755265,
Cetus Corp.
                                                                                                                                                       755265.
CA-419758.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0 B;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 C;
7 P;
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18 S;
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190185 and P90398.
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2 W;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2;
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N-PSDB;

Mark DF,

DF, Creasey AA; 88-219882/31.

(CETU)

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107
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P80052; Sequence of human interferon (huIFN) alpha-61A gene
(from "A-GeneSeq 35.2")
ID P80052 standard; protein; 167 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PT Multi-class hybrid interferon polypeptide(s) -
PT having sequence from interferon-alpha-1 and sequence from
PT interferon-beta-1 for restricted activity
PS Example; Fig 3; 24pp; English.
CC Multi-class hybrid IFN polypeptides having an AA sequence composed
CC of 2 distinct subsequences are claimed. The plasmids used in the
CC construction of the huIFN alpha-1-beta-1 hybrid 1 are plasmids pGW5 and
CC pDM101/trp/beta-1 contg. the genes coding for huIFN alpha-1 and huIFN
CC beta-1 respectively. The plasmid pGW5 was constructed from the plasmid
CC beta-1 respectively. The plasmid pGW5 was constructed from the plasmid
CC beta-1 respectively region between the EcoRI site to the PuuII site
CC with the E.coli trp promoter and the DNA sequence coding for the mature
CC protein of huIFN alpha-1.
SO Sequence 167 AA;
SO 8 A; 12 R; 6 N; 11 D; 0 B; 5 C; 10 Q; 16 E; 0 Z; 3 G; 3 H;
SO 6 I; 22 L; 8 K; 8 M; 8 F; 6 P; 13 S; 9 T; 2 W; 4 Y; 7 V;
Found using 'seq2' (09-424080.key)
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                                                                                                                                                                                                                                                                                                                                                                             Multi-class hybrid interferon polypeptide(s) - having sequence from interferon-alpha-1 and sequence from interferon-beta-1 for restricted activity

Example; Fig 16; 24pp; English.

Multi-class hybrid interferon polypeptides having an AA sequence composed of 2 distinct subsequences are claimed. The plasmids used in the construction of huffN-alpha-61A-beta-1 hybrid are plasmids palpha61A and pDM101/trp/beta-1. Assembly of the palpha61A plasmid invovled replacing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (CETU) Cetus Corp.
Mark DF, Creasey AA;
WPI; 88-219882/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   antitumour; antiviral; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence of human interferon (huIFN) alpha-61A gene in p-alpha-61A Alpha-beta hybrid interferon; multi-class hybrid interferon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P80052;
17-NOV-1990 (first entry)
                                                                                                                                                                                                                   with a 120BP ECORI/Sau3A promoter fragment E.coli trp promoter, operator, and trp leader ribosome binding site preceoperator, encoding an ATG initiation codon and using HindIII site that was inserted, 59 nucleotides 3'-end of the TGA translational stop codon, to insert the gene into the plasmid pBW1I (a deriv of pBR322 having a deletion between the HindIII and PvuII sites). The complete DNA sequence of the promoter and gene fragments inserted between the ECORI and HindIII sites of pBW11 is shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB; n80049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US4758428-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OMOH
                                                                                                                                                                                                                                                                                                                                                                the DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-JAN-1983;
                                                                                                                                                                               Sequence
                                                                                                                                                                                                in n80049.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .5-JUL-1985;
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                                                                                                                    using
vedtplmnvdsiltvrkyfqritlyltekkyspsawevvraeimrsfslsanlqerlr
132 139
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                                                                                                                                       11 R;
18 L;
                                                                                                                                                                                                                                                                                                                                         A fragment encoding the 23 AA signal polypeptide of preinterferon 120BP EcoRI/Sau3A promoter fragment E.coli trp promoter, operato
                                                                                                               'seq2'
                                                                                                                                                                               167
                                                                                                                                       8 6
K Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    755265.
CA-419758
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                                                                                                                    (09-424080.key)
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132 139
                                                                                                                                       0 B;
10 F;
                                                                                                                                       3 C;
5 P;
                                                                                                                                       13 Q;
14 S;
                                                                                                                                         13 E;
11 T;
                                                                                                                                         0 Z;
2 W;
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17-NOV-1990
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O| |O IntelliGenetics
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Selected sequence key from "09-424080.key": seq2 (AA) ID seq2 AA preliminary pattern
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Selected scope is Sequence.
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                                                                                                                                                                                                                                                                                    match found in sequence:

PCT-US00-01239-8; Sequence 8, Application PC/TUS0001239

from "/srch/paa/PCTUS_COMB.pep")

Quence 8, Application PC/TUS0001239

GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence context
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Note position of hit
Display full annotations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Report key used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nucleic acid code matching Find non-matching hits only
                                                                                                                                                                                                                                                                                                                                                                                                                                Time to start comparison
ORGANISM: Homo sapiens Found using 'seq2' (09-424080.key)
                                                                     SEQ ID NO 8
                                                                                                                                                     TITLE OF INVENTION: Keratinocyte Derived Interferon FILE REFERENCE: PF482P1 CURRENT APPLICATION NUMBER: PCT/US00/01239 CURRENT FILLING DATE: 2000-01-20 EARLIER APPLICATION NUMBER: 60/093,643 EARLIER FILING DATE: 1998-07-21 EARLIER FILING DATE: 1998-07-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Data bank : Pending_AA , all entries
                                                      [7m--More--(0%) [m
                                                                                                     EARLIER FILING DATE: 1999-07-21
NUMBER OF SEQ ID NOS: 54
                                                                                                                                        EARLIER APPLICATION NUMBER: PCT/US99/16424
                                                                                                                                                                                                                                                                      APPLICANT: Human Genome Sciences,
                                                                                       SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                Notify at end of run
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -- Output Parameters --
                                                          LENGTH: 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -- Run Parameters --
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No
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Yes
Yes
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sequence or key file
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             List of hits
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No No Yes

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1 match found in sequence:
PCT-US00-05881-828; Sequence 828, Application PC/TUS0005881
(from "/srch/paa/PCTUS_COMB.pep")
Sequence 828, Application PC/TUS0005881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 match found in sequence:
PCT-US00-05988-1444; Sequence 1444, Application PC/TUS0005988
(from "/srch/paa/PCTUS_COMB.pep")
Sequence 1444, Application PC/TUS0005988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO 828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids Found using 'seq2' (09-424080.key)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Craig Rosen,
APPLICANT: Steve Ruben
TITLE OF INVENTION: Human Breast and Ovarian Cancer Associated Gene Sequences and P
FILE REFERENCE: PA103PCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: PCT/US00/05881
CURRENT FILING DATE: 2000-03-08
EARLIER APPLICATION NUMBER: 60/124,270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EARLIER FILING DATE: 1999-03-12
NUMBER OF SEQ ID NOS: 846
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                        EARLIER APPLICATION NUMBER: 60/124,270
EARLIER FILING DATE: 2000-03-08
EARLIER FILING DATE: 1999-03-12
NUMBER OF SEQ ID NOS: 1890
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 1444
LENGTH. 5.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Craig Rosen,
APPLICANT: Steve Ruben
TITLE OF INVENTION: Human Prostate Cancer Associated Gene Sequences and Polypeptide
FILE REFERENCE: PANOUPCE:
FILE REFERENCE: PANOUPCE: DOTT/HGGG/AGGRA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: SITE
LOCATION: (43)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
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                                                                                                                                                                                                         NAME/KEY: SITE LOCATION: (6) OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                            TYPE: PRT
               OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                    NAME/KEY: SITE
                                                                                                                OTHER INFORMATION:
                                                                                                                                                              NAME/KEY: SITE
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FEATURE:
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                                                                                                                                         LOCATION:
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                                                                                                                                              (446
                                                                                                                  Xaa equals any of the naturally occurring L-amino acids
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CURRENT APPLICATION NUMBER: PCT/US00/08982
CURRENT FILING DATE: 2000-04-06
EARLIER APPLICATION NUMBER: 60/128,696
EARLIER FILING DATE: 1999-04-09
EARLIER APPLICATION NUMBER: 60/176,069
EARLIER FILING DATE: 2000-01-14
NUMBER: OF SEQ ID NOS: 142
SOFTWARE: Patentin Ver. 2.0
                                                                                                     ORGANISM: Homo sapiens Found using 'seq2' (09-424080.key)
                                                                                                                                                                                                 SEQ ID NO 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      match found in sequence:

PCT-US00-08982-108; Sequence 108, Application PC/TUS0008982

(from "/srch/paa/PCTUS_COMB.pep")

(from "/srch/paa/PCTUS_COMB.pep")
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: PCT/US00/07285
CURRENT FILING DATE: 2000-03-17
NUMBER OF SEQ ID NOS: 194
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             [7m--More--(0%) [m ... [K
                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: 48 Human Secreted Proteins FILE REFERENCE: PS542PCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Homo sapiens Found using 'seq2' (09-4)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             match found in sequence:
PCT-US00-07285-106; Sequence 106, Application PC/TUS0007285
(from "/srch/pad/PCTUS_COMB.pep")
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Hall, Jeff
APPLICANT: Rapiejko, Peter
TITLE OF INVENTION: SECRETED PROTEINS AND POLYNUCLEOTIDES ENCODING THEM
FILE REFERENCE: GI 6919X
                                                                                                                                     ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Valenzuela, Dario APPLICANT: Yuan, Olive
                                                                                                                                                                                 ENGTH: 66
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LOCATION: (502)
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Q.
                              LSPRLECSGAISAHCKLRLTDSRHSPASACSWDYRRPPRRPGQLSVFSVEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IGSLLFGVLFLVIGLVLLGRILSESLRRKRYSRLDYLINGIYVDI
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75
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LOCATION: (370)
OTHER INFORMATION: Xaa equals stop translation
Found using 'seq2' (09-424080.key)
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PCT-US00-08983-142; Sequence 142, Application PC/TUS0008983

(from "/srch/paa/PCTUS_COMB.pep")

Sequence 142, Application PC/TUS0008983

GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 142
LENGTH: 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 match found in sequence:
PCT-US00-08983-141; Sequence 141, Application PC/TUS0008983
(from "/srch/paa/PCTUS_COMB.pep")
Sequence 141, Application PC/TUS0008983
GENERAL INFORMATION:
APPLICANT: Human Genome Sciences, Inc.
                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: PCT/US00/08983
CURRENT FILING DATE: 2000-04-06
EARLIER APPLICATION NUMBER: 60/128,703
EARLIER FILING DATE: 1999-04-09
EARLIER APPLICATION NUMBER: 60/176,068
EARLIER FILING DATE: 2000-01-20
NUMBER OF SEQ ID NOS: 152
COMPTON NOW, 152
NUMBER OF SEQ ID NOS: 152
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: 50 Human Secreted Proteins FILE REFERENCE: PS543PCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: PatentIn Ver. 2.0 SEQ ID NO 141
                                                                                                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                   TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: PCT/US00/08983
CURRENT FILING DATE: 2000-04-06
EARLIER APPLICATION NUMBER: 60/128,703
EARLIER FILING DATE: 1999-04-09
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EARLIER FILING DATE: 2000-01-20
NUMBER OF SEQ ID NOS: 152
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          SSGSLGSGEFTGVKELDDISQEIAQLQREKYSLEQDIREKEEAIRQKTSEVQELQNDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SSSTLASGEFTGVKELDDISQEIAQLQREKYSLEQDIREKEEAIKQKTSEVQELQNDL
100 107
100
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1 match found in sequence:
PCT-US00-26524B-6953; Sequence 6953, Application PC/TUS0026524B
(from "/srch/paa/PCTUS\_COMB.pep")
Sequence 6953, Application PC/TUS0026524B

GENERAL INFORMATION:

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ORGANISM: Homo sapiens Found using 'seq2' (09-424080.key) {7m--More--(0%) {m {K}}
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LENGTH: 92
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LENGTH: 365
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                                                                                                                                                                                                                                                                                                                                                                                                                              l match found in sequence:
PCT-US01-00663-28110; Sequence 28110, Application PC/TUS0100663
(from "/srch/paa/PCTUS_COMB.pep")
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens Found using 'seq2' (09-4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Birse et. al.
TITLE OF INVENTION: Colon and Colon Cancer Associated Polynucleotides and Polypeptides
FILE REFERENCE: PA005PCT
                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 28110, Application PC/TUS0100663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: US09/488,725
PRIOR FILING DATE: 2000-01-21
PRIOR APPLICATION NUMBER: US09/552,317
PRIOR FILING DATE: 2000-04-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: PCT/US00/35017A
CURRENT FILING DATE: 2000-12-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Hyseq Inc
TITLE OF INVENTION: Novel Nucleic Acids and Polypeptides
FILE REFERENCE: 784PCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 60/163,280 PRIOR FILING DATE: 1999-11-03
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CURRENT APPLICATION NUMBER: PCT/US01/00663 CURRENT FILING DATE: 2001-01-30 PRIOR APPLICATION NUMBER: US 60/180,312 PRIOR EILING DATE: 04 February 2000 (04.02.00) PRIOR APPLICATION NUMBER: US 60/207,456
                                                                                                                                                APPLICANT: Penn, Sharron G.
APPLICANT: Rank, David R.
APPLICANT: Hanzel, David K.
APPLICANT: Chen, Wensheng
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
TITLE OF INVENTION: ANALYSIS OF GENE EXPRESSION IN HUMAN PLACENTA
FILE REFERENCE: PB 0004 WO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 1478
                                                                                                                                                                                                                                                                                                                            APPLICANT: Molecular Dynamics, Inc. APPLICANT: Penn, Sharron G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IGSLLFGVLFLVIGLVLLGRILSESLRRKRYSRLDYLINGIYVDI
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CURRENT FILING DATE: 2001-01-09

PRIOR APPLICATION NUMBER: US 60/180,312

PRIOR APPLICATION NUMBER: US 60/200 (04.02.00)

PRIOR FILING DATE: 04 February 2000 (04.02.00)

PRIOR PRIOR APPLICATION NUMBER: US 60/207,456

PRIOR FILING DATE: 26 May 2000 (26.05.00)

PRIOR PRIOR DATE: 03 August 2000 (03.08.00)

PRIOR PRIOR PRIOR DATE: 03 OCCOBE 2000 (03.10.00)

PRIOR FILING DATE: 03 OCCOBE 359

PRIOR APPLICATION NUMBER: US 60/236,359

PRIOR APPLICATION NUMBER: US 60/234,687

PRIOR PRIOR FILING DATE: 21 September 2000 (27.09.00)

PRIOR PRIOR FILING DATE: 21 September 2000 (21.09.00)

PRIOR FILING DATE: 21 September 2000 (21.09.00)

PRIOR FILING DATE: 21 September 2000 (21.09.00)
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PCT-US01-00663-31537; Sequence 31537, Application PC/TUS0100663

(from "/srch/paa/PCTUS_COMB.pep")
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PRIOR APPLICATION NUMBER: US 09/632,366

PRIOR FILING DATE: 03 August 2000 (03.08.00)

PRIOR APPLICATION NUMBER: GB 24263.6

PRIOR FILING DATE: 03 October 2000 (03.10.00)

[7m--More--(0%) [m PRIOR APPLICATION NUMBER: US 60/236,359

PRIOR FILING DATE: 27 September 2000 (27.09.00)

PRIOR APPLICATION NUMBER: US 60/234,687

PRIOR APPLICATION NUMBER: US 60/234,687

PRIOR APPLICATION NUMBER: US 09/608,468

PRIOR APPLICATION NUMBER: US 09/608,468
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                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: US 09/608/408
PRIOR FILING DATE: 30 June 2000 (30.06.00)
NUMBER OF SEC ID NOS: 38837
SOFTWARE: Molecular Dynamics Sequence Listing Engine SEC ID NO 31537
LENGTH: 751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Found using 'seq2' (09-424080.key)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Penn, Sharron G.
APPLICANT: Rank, David R.
APPLICANT: Hanzel, David K.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
TITLE OF INVENTION: ANALYSIS OF GENE EXPRESSION IN HUMAN PLACENTA
FILE REFERENCE: PB 0004 WO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR FILING DATE: 30 June 2000 (30.06.00) NUMBER OF SEQ ID NOS: 38837
Found using 'seq2' (09-424080.key)
                                   ORGANISM: Homo sapiens
[7m--more--(0%) [m FEATURE:
OTHER INFORMATION: MAP TO AL049872.3
OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 2.7
OTHER INFORMATION: EST_HUMAN HIT: AU138211.1, EVALUE 2.00e-83
OTHER INFORMATION: SWISSPROT HIT: Q10411, EVALUE 3.00e-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Molecular Dynamics, Inc. APPLICANT: Penn, Sharron G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: PCT/US01/00663
CURRENT FILING DATE: 2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OTHER INFORMATION: MAP TO AC009363.3
OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 6.9
OTHER INFORMATION: EST_HUMAN HIT: BE906024.1, EVALUE 1.00e-19
OTHER INFORMATION: SWISSPROT HIT: Q60765, EVALUE 8.00e-13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH:
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TITLE OF INVESTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR TITLE OF INVESTION: HUMAN GENOME-DERIVED SINGLE EXPRESSION IN HUMAN PLACENTA FILE REFERENCE: PB 0004 WO 7

CURRENT FILING DATE: PB 0004 WO 7

CURRENT FILING DATE: 2001-01-30

PRIOR APPLICATION NUMBER: US 60/180,312

PRIOR APPLICATION NUMBER: US 60/207,456

PRIOR RILING DATE: 04 February 2000 (04.02.00)

PRIOR RILING DATE: 03 MAGUST 2000 (03.08.00)

PRIOR APPLICATION NUMBER: US 09/632,366

PRIOR FILING DATE: 03 AUGUST 2000 (03.08.00)

PRIOR APPLICATION NUMBER: US 09/632,368

PRIOR RILING DATE: 27 September 2000 (27.09.00)

PRIOR APPLICATION NUMBER: US 60/234,687

PRIOR FILING DATE: 21 September 2000 (21.09.00)

PRIOR FILING DATE: 21 September 2000 (27.09.00)

PRIOR FILING DATE: 21 September 2000 (21.09.00)

PRIOR FILING DATE: 21 September 2000 (21.09.00)

PRIOR FILING DATE: 30 June 2000 (30.06.00)

PRIOR FILING DATE: 31 September 2000 (21.09.00)

PRIOR FILING DATE: 31 September 2000 (30.06.00)

PRIOR FILING DATE: 31 September 2000 (30.06.00)

PRIOR FILING DATE: 31 September 2000 (30.06.00)

PRIOR FILING DATE: 31 September 2000 (30.06.00)
                                                                                                                                                                                                                                                                                                                                                       L match found in sequence:
PCT-US01-00663-34955; Sequence 34955, Application PC/TUS0100663
(from "/srch/paa/PCTUS.COMB.pep")
Sequence 34955, Application PC/TUS0100663
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: MAP TO AC004614.1
OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 2
OTHER INFORMATION: SWISSPROT HIT: P45702, EVALUE 1.80e+00
OTHER INFORMATION: EST_HUMAN HIT: AA249238.1, EVALUE 6.60e-01
Found using 'seq2' (09-424080.key)
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                           APPLICANT: Molecular Dynamics, Inc.
APPLICANT: Molecular Dynamics, Inc.
APPLICANT: Penn, Sharron G.
APPLICANT: Rank, David R.
APPLICANT: Hanzel, David K.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
TITLE OF INVENTION: ANALYSIS OF GENE EXPRESSION IN HUMAN PLACENTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   [7m--More--(0%) [m 11
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PCT-US01-00663-34035; Sequence 34035, Application PC/TUS0100663
(from "/srch/paa/PCTUS_COMB.pep").
Sequence 34035, Application PC/TUS0100663
FILE REFERENCE: PB 0004 WO 7
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597 604
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Rank, David R.
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Chen, Wensheng
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PRIOR APPLICATION NUMBER: US 60/180,312
PRIOR FILLING DATE: 04 February 2000 (04.02.00)
PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR FILLING DATE: 26 MAY 2000 (25.05.00)
PRIOR APPLICATION NUMBER: US 09/632,366
PRIOR FILLING DATE: 03 August 2000 (03.08.00)
PRIOR APPLICATION NUMBER: US 09/632,366
PRIOR APPLICATION NUMBER: US 09/632,360
PRIOR FILLING DATE: 03 October 2000 (03.10.00)
PRIOR APPLICATION NUMBER: US 60/236,359
PRIOR FILLING DATE: 12 September 2000 (27.09.00)
PRIOR APPLICATION NUMBER: US 60/234,687
PRIOR FILLING DATE: 12 September 2000 (21.09.00)
PRIOR APPLICATION NUMBER: US 60/234,687
PRIOR FILLING DATE: 30 June 2000 (30.06.00)
NUMBER: 05 90/608,408
NUMBER: 05 90/608,408
NUMBER: 05 90/608,408
NUMBER: 05 90/608,408
                                                                              Number of sequences searched:
Number of sequence hits:
Number of separate matches:
Number of sequence hits saved
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 match found in sequence:

PCT-US01-00663-38470; Sequence 38470, Application PC/TUS0100663

(from "/srch/paa/PCTUS_COMB.pep")

Sequence 38470, Application PC/TUS0100663

GENERAL INFORMATION:
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script done on Tue Jan 15 10:39:19 2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Molecular Dynamics, Inc
APPLICANT: Penn, Sharron G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Molecular Dynamics Sequence Listing Engine
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OTHER INFORMATION: EXPRESSED IN PLACENTA,
OTHER INFORMATION: SWISSPROT HIT: P16543,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
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                                                                           separate matches:
sequence hits saved:
                                                                                                                                                                                                                                                                                                                                                                                                                             Penn, Sharron G
                                                                                                                                                                                                                00:23:34.02
                                                                                                                                                                                                                                                                                               -- Search Statistics --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001-01-30
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EVALUE
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Script started on Tue Jan 15 10:33:19 2002

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Selected search type is key against sequence data banks or files. Selected scope is Sequence.
Selected sequence key from "09-424080.key":
seq2 (AA) ID seq2 AA preliminary pattern
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Quest - Quick User-directed Expression Search Tool
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nucleic acid code matching
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          match found in sequence: us-08-062-368-2; Sequence
                                                                                                                                                             [7m--More--(1%)
                                                                                                                                                                                                                                                                                                                                                                                                                                    Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Run mode
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence context
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Note position of hit
Display full annotations
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Find non-matching hits only
                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                              from "/srch/iaa/5A_COMB.pep")
equence 2, Application US/08062368
equence 2, Application US/08062368
equence 2, Application US/08062368
equence 3, Application US/08062368
equence 3, Application US/08062368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Data bank : Issued_AA , all entries
                                                                                                                                                                                                                                                              APPLICANT: Gelfand, David H.
APPLICANT: Wang, Alice M.
TITLE OF INVENTION: Purified Thermostable Nucleic Acid
TITLE OF INVENTION: Polymerases Enzyme From Pyrodictium Species
NUMBER OF SEQUENCES: 35
CORRESPONDENCE ADDRESS:
ADDRESSEE: Hoffmann-La Roche Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Time to start comparison Notify at end of run
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: PC DOS/MS-DOS
SOFTWARE: PATENTIAN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/062,368
FILING DATE: 19930514
                                                                                                                                                                                                        STATE:
                                                                                                                                                                                                                                             STREET:
                                                                                                                                                                                  COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         t or r or q or m or e or q e or r or d or 1 or i or a k or r or n or m or s or e k or r or d or n or s y or h s or r or d or n or a
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                                                                                                                                                                                New Jersey
                                                                                                                                                                                                                                               340 Kingsland Street
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -- Output Parameters --
                                                                                                                                                                   ZIP:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Run Parameters --
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Yes
Yes
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Name and annotations
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Sequence or key file
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1 match found in sequence:
US-08-286-888B-1; Sequence 1, Application US/08286888B
(from "/srch/iaa/5A_COMB.pep")
Sequence 1, Application US/08286888B
Patent No. 5627024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOLECULE TYPE: DNA (genomic) Found using 'seq2' (09-424080.key)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Patent No.
                                                                                                                                                                                                                                                        [7m--More--(2%) [m FILIN CLASSIFICATION: 435 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
MOLECULE TYPE: DNA (genomic) Found using 'seq2' (09-424080.key)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION:
                                                                                                                               INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Sias Ph.D., Stacey R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Brenner, TITLE OF INVENTION: TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                               SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                                                                                TELECOMMUNICATION INFORMATION: TELEPHONE: 619-554-2937
                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 32,630 REFERENCE/DOCKET NUMBER: 858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: amino acid
STRANDEDNESS: sin
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                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE:
                                                                                                                                 TELEPHONE: 619-554-6312
TELEPHONE: 619-554-6312
TELEPHONE: 619-554-6312
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE:
                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER: 34,
                                                                                                                                                                                                                                          NAME:
                                                      STRANDEDNESS:
                                      TOPOLOGY:
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                                                                                           LENGTH:
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                                                                                                                                                                                                                                      Fitting, Thomas
                                                                           amino acid
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(510) 814-2977
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                                                                                           246 amino acids
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LAMBDOID BACTERIOPHAGE VECTORS FOR
                                                                                                                                                                                                                                                                                                FILING DATE:
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Yes No No Yes

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1 match found in sequence:
US-08-294-386C-1; Sequence 1, Application US/08294386C
(from "/srch/iaa/5A_COMB.pep")
Sequence 1, Application US/08294386C
Patent No. 5646030
                                                                                                                                                                                                                                                             25
                                                                                                                                                                                                                                                                                                                                                   Found using 'seq2' (09-424080.key)
                            GENERAL
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[7m-More--(3%) [m TELEFA:
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-286-888B-6; Sequence 6, Application US/08286888B (from "/srch/laa/5A_COMB.pep")
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      APPLICANT:
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REFERENCE/DOCKET NUMBER: TSI
TELECOMMUNICATION INFORMATION:
TELEPHONE: 619-554-2937
                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: peptide LOCATION: 177
OTHER INFORMATION: OTHER INFORMATION: OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE: protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Maruyama, Ichiro
APPLICANT: Maruyama, Hiroko
APPLICANT: Brenner, Sydney
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TITLE OF INVENTION: LAMBDOID BACTERIOPHAGE VECTORS FOR
TITLE OF INVENTION: EXPRESSION OF FOREIGN PROTEINS
NUMBER OF SEQUENCES: 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 292 amino acids TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/08/286,888B
FILING DATE: 05-AUG-1994
CLASSIFICATION: 435
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OPERATING SYSTEM: PC-DOS/MS-DOS
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STATE: CA
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STREET: 10666 No. 5627024th Torrey Pines Road, TPC8
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                      INFORMATION:
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Ray, Bryan L.
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                                                                                                                                                                                                                                                                                                                                                                           /note= "Wherein Xaa is a suppressor termination
codon"
                                                                                                                                                                                                                                                                                                                                                                                                                     /label= Xaa
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1 match found in sequence:
US-08-294-386C-3; Sequence 3, Application US/08294386C
(from "/srch/iaa/5A_COMB.pep")
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                                                                                                                                                                                                                                                                                                                                                             Sequence 3, Application US/08294386C Patent No. 5646030
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TELEFAX: 617/330-1311
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                CURRENT APPLICATION DATA:
APPLICATION NUMBER: US,
                                                                                                                    COMPUTER READABLE FORM:
                                                                                                                                                                                                                 TITLE OF INVENTION: Method Of Isolating Mutant Cells NUMBER OF SEQUENCES: 20 CORRESPONDENCE ADDRESS: ADDRESSEE: Lappin & Kusmer
                                                                                                                                                                                                                                                                                  APPLICANT: Ray, Bryan L.
APPLICANT: Lin, Edmund C.C.
APPLICANT: Crea, Roberto
                                                                                                                                                                      STREET: 20 Boston
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ANTI-SENSE: |
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REFERENCE/DOCKET NUMBER: SY
TELECOMMUNICATION: INFORMATION:
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APPLICATION NUMBER: US
FILING DATE: August 23
                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATING
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                      MEDIUM TYPE:
COMPUTER: IE
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APPLICANT: Crea, Roberto
TITLE OF INVENTION: Method Of Isolating Mutant Cells
NUMBER OF SEQUENCES: 20
   FILING DATE:
                                                                                                                                           ZIP:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
                                                                                                                                                        COUNTRY:
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OPERATING SYSTEM:
SOFTWARE: PatentI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Kerner, Ann-Lo
REGISTRATION NUMBER:
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200 State Street
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IBM PC compatible
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: August 23, 1994
'ON: 435
UMBER: US/08/294,386C
August 23, 1994
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NO
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SYZZ-010CIP

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CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Kerner, Ann-Louise
REGISTRATION UNBER: 33,523
REFERENCE/DOCKET NUMBER: SYZZ.
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617/330-1310
TELEFAX: 617/330-1311
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 246 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHETICAL: NO
ANTI-SENSE: NO
ANTI-SENSE: NO
                                                                        PRIOR APPLICATION: 435

PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 08/053,865
FILING DATE: 27-APR-1993
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: KETNET, Ann-Louise
REGISTRATION NUMBER: 33,523
REFERENCE/DOCKET NUMBER: SYZ-011FWC
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617/526-6000
TELEFAX: 617/526-5000
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
IFMCTH: 2046 Amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 match found in sequence:
US-08-299-249A-1; Sequence 1, Application US/08299249A
(from ",Srch/laa/5A_COMB.pep")
Sequence 1, Application US/08299249A
Patent No. 5650267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ANTI-SENSE: NO Found using 'seq2' (09-424080.key)
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APPLICANT: LIN, Edmund C.C.
TITLE OF INVENTION: Method Of Detecting Compounds
TITLE OF INVENTION: Utilizing Genetically Modified
NUMBER OF SEQUENCES: 15
CORRESPONDENCE ADDRESS:
ADDRESSEE: HALE and DORR
                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Boston
STATE: MA
COUNTRY: U.S.F
ZIP: 02109
                        LENGTH: 246 amino acids TYPE: amino acid STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/0 FILING DATE: 31-AUG-1994
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TOPOLOGY: linear
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Number of separate matches:
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Title:
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Maximum Match 100%
Listing first 50 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scoring table:
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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     protein search, using sw model
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length: 2000000000
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9.024 Million cell updates/sec
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Copyright (c) 1993 - 2000 Comp
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /cgn2_6/ptodata/2/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/2/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/2/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/backfiles1.pep:*
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   DB
US-08-669-284B-30
US-08-362-453-4
US-08-362-453-10
US-08-362-453-11
US-08-362-453-12
US-08-362-453-13
US-08-362-453-13
US-08-362-453-13
US-08-362-453-9
US-08-362-453-9
US-08-489-072A-16
US-08-954-395A-10
US-08-954-395A-11
US-08-954-395A-11
US-08-954-395A-14
US-08-954-395A-13
US-08-954-395A-14
US-08-954-395A-14
US-08-954-395A-14
US-08-954-395A-14
US-08-954-395A-15
US-08-954-395A-16
US-08-954-395A-16
US-08-954-395A-17
US-08-954-395A-16
US-08-954-395A-17
US-08-954-395A-16
US-08-954-395A-17
US-08-954-395A-16
US-08-39-339-913B-76
US-09-339-913B-76
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     Sequence
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     13, Appl
8, Appli
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19, Appli
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19, Appli
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4, Appli
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10, Appl
11, Appl
11, Appl
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ochaciica rol istra	٥.	Sequence 18, Appi	Sequence 12, Appl	Sequence II, Appi	, t	α	Sequence 2, Appli	,	, 0,	, T	, ,	Sequence 16, Appi	`	Sequence /, Appli	Sequence 6, Appli	Sequence 3, Appli	Sequence 2, Appli	Sequence 1, Appli	Sequence 85, Appr	`	α,		•

#### ALIGNMENTS

APPLICATION NUMBER: JP 06-268281 FILING DATE: 05-0CT-1994 PRIOR APPLICATION DATA: APPLICATION NUMBER: JP 06-201504 FILING DATE: 02-AUG-1994 PRIOR APPLICATION NUMBER: JP 05-350934 FILING DATE: 29-DEC-1993 ATTORNEY/AGENT INFORMATION: NAME: NAKAMULTA, DEAN H. REGISTRATION NUMBER: 33,981 REFERENCE/DOCKET NUMBER: Q-42041	ONDENCE ADDRESS: SSSEE: SUGHRUE, MION, SSSEE: 2100 pennsylvania : Washington : Washington : Washington 2 D.C. RY: USA RAPATE: Floppy disk JTER: IBM PC compatibl ATING SYSTEM: PC-DOSA ATING SYSTEM: PC-DOSA ARE: Patentin Release I APPLICATION DATA: ICATION NUMBER: US/08 NG DATE: 28-JUN-1996 APPLICATION NUMBER: PCT/JP NG DATE: 27-DEC-1994 APPLICATION NUMBER: PCT/JP NG DATE: 27-DEC-1994 APPLICATION NUMBER: PCT/JP NG DATE: 27-DEC-1994 APPLICATION DATA:	RESULT 1 1
		HIC FACTORS

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RESULT 2
US-08-362-453-4
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Matches .
                                         Query Match
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                                                                                                                                                                              TELEFAX: (202) 638-4810
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: Kitts, Monica Chin
REGISTRATION NUMBER: 36,105
REFERENCE/DOCKET NUMBER: P638
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 638-5000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
APPLICANT: FISH, Eleanor N.
TITLE OF INVENTION: INTERFE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (202)293-7860
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                      MOLECULE TYPE:
                                                                                                                                                                   SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
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                     Local Similarity
                                                                                                                     TOPOLOGY:
                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: FILING DATE: 06-JAN
                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE:
                                                                                                                                                  LENGTH:
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                                                                                                                              amino acid
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                                                                                                                                               11 amino acids
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         Conservative
                                                                                                                   unknown
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Floppy disk
                                                                                                  peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                    06-JAN-1995
 100.0%; Score 42; DB 1; 100.0%; Pred. No. 0.0064; tive 0; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INTERFERON RECEPTOR BINDING PEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
                                                                                                                                                                                                                                                                                                      FILING DATE: 20-NOV-1992
PCT/CA93/00279
FILING DATE: 06-JUL-1993
                                                                                                                                                                                                                                                                                                                                                     FILING DATE: (
US 07/980,525
                                                                                                                                                                                                                                                                                                                                                                                  US 07/909,739
                                                                                                                                                                                                                                                                                                                                                                                                                                               US/08/362,453
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Pred. No. 1.6e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
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                                DB 1; Length 11;
      0;
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US-08-362-453-10
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US-08-362-453-5
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                                                                                                                                        Sequence 10, Approximately No. 5684129
                                                                                                                             GENERAL INFORMATION:
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APPLICATION NUMBER: US 07/A

APPLICATION NUMBER: FILING
APPLICATION NUMBER: APPLICATION:
NAME: Kitts, Monica Chin
NAME: Kitts, Monica Chin
NAME: Kitts, Monica Chin
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         CORRESPONDENCE ADDRESS:
ADDRESSEE: Nikaido, Marmelstein, Murray & Oram
STREET: 655 Fifteenth Street N.W. Suite 330
                                                                                  APPLICANT: FISH, ELEANOR N.
TITLE OF INVENTION: INTERFERON RECEPTOR BINDING PEPTIDES
                                                                         NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: P6
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: INTERFERON RECEPTOR BINDING PEPTIDES NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/01 FILING DATE: 06-JAN-1995
                                                                                                                                                                                                                                                                                              1 LTEKKYSP 8
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Washington
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20005-5701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            amino acid
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                                                                                                                                                               Application US/08362453
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              unknown
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                                                                                                                                                                                                                                                                                                                                                                                                                                           peptide
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US 07/980,525
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                                                                                                                                                                                                                                                                                                                                 0;
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                                                                                                                                                                                                                                                                                                                             Gaps
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COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk

20005-5701

COUNTRY:

U.S.A.

STATE: D.C

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Patent No. 5684129
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (202) 638-4810 INFORMATION FOR SEQ ID NO: 10:
                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
APPLICANT: FISH, Eleanor N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
NAME: Kitts, Monica Chin
REGISTRATION NUMBER: 36,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 150 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION: TELEPHONE: (202) 638-5000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION: 514
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: INTERFERON RECEPTOR BINDING PEPTIDES NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                           COUNTRY: U.S.A.
ZIP: 20005-5701
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Relace
                                                                                                                                      SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: APPLICATION NUMBER: APPLICATION NUMBER: APPLICATION NUMBER:
                                                FILING DATE: 06-JAN-1
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: (
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REFERENCE/DOCKET NUMBER: P638-4017
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les 8; Conserv
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                                                                                                                                                                                                                                                                              STATE:
                                                                                                                                                                     COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                               CITY: Washington
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APPLICATION NUMBER:
                                   APPLICATION NUMBER:
                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          amino acid
                                                                                                                                                                                                                                                                                 D.C.
                                                                                                                                                                                                                                                                                                                   E: Nikaido, Marmelstein, Murray & Oram 655 Fifteenth Street N.W. Suite 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; ilarity 100.0%; Conservative 0
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                                                                                                        06-JAN-1995
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FILING DATE: 07-JUL-1992
US 07/980,525
FILING DATE: 20-NOV-1992
PCT/CA93/00279
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                                                                                                                           US/08/362,453
                US 07/909,739
FILING DATE: 07-JUL-1992
US 07/980,525
 FILING DATE: 20-NOV-1992
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US-08-362-453-11
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MOLECULE TYPE: US-08-362-453-12
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Matches 8; Conservative
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INFORMATION FOR SEQ ID NO:
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APPLICANT: FISH, Eleanor N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: PCT/CA93/00279
APPLICATION NUMBER: FILING DATE: 06-JUL-1993
ATTORNBY/AGENT INFORMATION:
NAME: Kitts, Monica Chin
REGISTRATION NUMBER: 36,105
REFERENCE/DOCKET NUMBER: P638-4017
                                                             INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 150 amino acid
                                                                                                                                                                                                                                                                                              CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: E1
APPLICATION NUMBER: E1
APPLICATION NUMBER: US
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LENGTH: 150 amino acid
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TELEPHONE: (202) 638-5000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
NAME: Kitts, Monica Chin
REGISTRATION NUMBER: 36,1
                                                                                                                                           TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 638-5000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                     TOPOLOGY:
                                                                                                                                                                              REFERENCE/DOCKET NUMBER:
                                                     TYPE:
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                                                     amino acid
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655 Fifteenth Street N.W. Suite 330
                                                                          150 amino acids
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                                                                                                                          (202) 638-4810
                                       unknown
                    protein
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                                                                                                                                                                                                                                                   FILING DATE: 06-JUL-1993
                                                                                                                                                                                                                                                                  US 07/980,525
FILING DATE: 20-NOV-1992
PCT/CA93/00279
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Pred. No. 0.11;
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NUMBER OF SEQUENCES:

17

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RESULT 8
US-08-362-453-13
; Sequence 13, Ap
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; Sequence 15, Application US/08362453

; Patent No. 5684129
                                                         Patent No. 5684129
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     GENERAL INFORMATION:
APPLICANT: FISH, EL
TITLE OF INVENTION:
                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                  Query Match
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GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 162 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
NAME: KITCS, MONICA Chin
REGISTRATION NUMBER: 36,105
REFERENCE/DOCKET NUMBER: P638-4017
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compartible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARRE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION DATA:
                                                                                                                                                     127 LTEKKYSP 134
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TITLE OF INVENTION: INVERFERON RECEPTOR BINDING PEPTIDES
NUMBER OF SEQUENCES: 17
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nes 8; Conserv
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                                                                                                                                                                                 1 LTEKKYSP 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: FILING DATE: 06-JAN
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20005-5701
                                                                                                                                                                                                                                                                                                                                           amino acid
                                                                Application US/08362453
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                      FISH, Eleanor N.
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                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                              unknown
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                                                                                                                                                                                                                                                                                                             protein
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15:
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INTERFERON RECEPTOR BINDING PEPTIDES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 06-JUL-1993
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FILING DATE: 07-JUL-1992
US 07/980,525
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PCT/CA93/00279
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US-08-362-453-14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
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                COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IIBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION UNMBER: US/08/362,453
FILING DATE: 06-7AN-1995
                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: Nikaido, Marmelstein, Murray & Oram STREET: 655 Fifteenth Street N.W. Suite 330
                                                                                                                                                                                                                                                                          APPLICANT: FISH, Eleanor N.
TITLE OF INVENTION: INTERFERON RECEPTOR BINDING PEPTIDES
NUMBER OF SEQUENCES: 17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 130 LTEKKYSP 137
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TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION: NAME: Kitts, Monica Chin
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MEDIUM TYPE: Floppy
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APPLICATION NUMBER:
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APPLICATION NUMBER:
APPLICATION NUMBER:
CLASSIFICATION:
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CLASSIFICATION:
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                                                                                                                                                     20005-5701
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20005-5701
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        unknown
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FILING DATE: 07-JUL-1992
US 07/980,525
FILING DATE: 20-NOV-1992
PCT/CA93/00279
FILING DATE: 06-JUL-1993
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Pred. No. 0.12;
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US-08-362-453-8
; Sequence 8, Application US/08362453
; Patent No. 5684129
; GENERAL INFORMATION:
; APPLICANT: FISH, Eleanor N.
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APPLICATION NUMBER: FILING
APPORTATION: INFORMATION:
NAME: Kitts, Monica Chin
REGISTRATION NUMBER: 36,10
REFERENCE/DOCKET NUMBER: F
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                                                                                                                                                                                           APPLICATION NUMBER: US
FILING DATE: 06-7AN-19
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US
APPLICATION NUMBER: US
APPLICATION NUMBER: US
APPLICATION NUMBER: EI
APPLICATION NUMBER: EI
                TELEFAX: (202) 638-48 INFORMATION FOR SEQ ID NO:
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LENGTH: 165 amino acid
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                                                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                       ATTORNEY/AGENT INFORMATION:
NAME: Kitts, Monica Chin
REGISTRATION NUMBER: 36,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
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                                                                     TELECOMMUNICATION INFORMATION:
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SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Washington
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                                                                                        REGISTRATION NUMBER: 36,105
REFERENCE/DOCKET NUMBER: P638-4017
                                                                                                                                                           APPLICATION NUMBER: PCT/CA93/00279
APPLICATION NUMBER: FILING DATE: 06-JUL-1993
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GY: unknown
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                                 638-4810
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100.0%; Pred. No. 0
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US 07/980,525
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FILING DATE: 07-JUL-1992
US 07/980,525
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; MOLECULE TYPE:
US-08-362-453-8
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Best Local Similarity
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Patent No. 5684129
GENERAL INFORMATION:
                                                     Matches
                                                                   Query Match
Best Local :
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INFORMATION FOR SEQ ID NO:
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APPLICATION NUMBER: PCT/CA
APPLICATION NUMBER: FILING
ATTORNEY/AGENT INFORMATION:
NAME: Kitts, Monica Chin
REGISTRATION NUMBER: 36,10
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PRIOR APPLICATION DATA:
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TELECOMMUNICATION INFORMATION:
                                                                                                                                         MOLECULE TYPE:
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131 LTEKKYSP 138
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TELEPHAX: (202) 638-4810
TELEFAX: --- ceo ID NO: 9:
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                                                  Local Similarity
les 8; Conserv
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                         1 LTEKKYSP 8
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amino acid
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                                                                                                                                        protein
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100.0%; Pred. No.
                                                                 100.0%;
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US 07/980,525
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                                                                    Score 42; I
Pred. No. 0.
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S-08-489-066A-16
                                                                                                                                     Sequence 16, Application US/08489072A Patent No. 6001589
GENERAL INFORMATION:
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Best Local Similarity
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FILING DATE: 11-JUN-1993
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Fehlner, Ph.D., Esq., Paul F.
REGISTRATION NUMBER: 35,135
REFERENCE/DOCKET NUMBER: 1705-1-002 C
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INFORMATION FOR SEQ ID NO:
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                                               NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                      APPLICANT: PESTKA, SIDNEY TITLE OF INVENTION: SUPER TITLE OF INVENTION: INTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE:
HYPOTHETICAL:
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APPLICATION NUMBER: US 08/257,784
FILING DATE: 10-JUN-1994
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MEDIUM TYPE: Floppy
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TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                      131 LTEKKYSP 138
   STREET:
CITY: F
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                                    ADDRESSEE:
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FILING DATE: 09-JUN
CLASSIFICATION: 435
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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Hackensack
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amino acid
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                411 Hackensack Avenue
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411 Hackensack Avenue
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                                  Klauber & Jackson
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)N: 435
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                                                                                      INTERLEUKINS,
                                                                                  SUPER PROTEINS INCLUDING INTERFERONS, INTERLEUKINS, ET AL.
                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 42; DB 2
100.0%; Pred. No. 0.12;
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                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                     DB 2; Length 166;
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US-08-819-238A-2
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Best Local Similarity
Best Acad Similarity
Best Acad Similarity
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                                                                                                                                                                                                                                                                                                               Sequence 2, Application US/08819238A Patent No. 6069133
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO:
                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                APPLICANT: Henry C. TITLE OF INVENTION: TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: 17
TELECOMMUNICATION INFORMATION: 201 487-5800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS
LENGTH: 166 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 530
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 08/257,784
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ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                    131 LTEKKYSP 138
APPLICATION NUMBER: FILING DATE:
                                                                                                                                   ZIP:
                                                                                                                                                                   STATE:
                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: amino acid TOPOLOGY: unknown
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 11-JUN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 LTEKKYSP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 10-JUN-1994
CLASSIFICATION: 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: FILING DATE: 09-JUN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                02109-1875
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RATION NUMBER: 35,135
                                                                                                                                                                                                E: LAHIVE & COCKFIELD, LLP 60 STATE STREET, SUITE 510
                                                                                                                                                 USA
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            US/08/819,238A
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Pred. No. 0.12;
Mismatches
                                              Version
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TELEFAX: (617)227-5941
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 166 amino acids
TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE: peptide FRAGMENT TYPE: internal -08-819-238A-2
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
FILING DATE: 12-APR-1996
ATTORNEY/AGENT INFORMATION:
NAME: Dehlinger, Peter J
REGISTRATION NUMBER: 27008
REFERENCE/DOCKET NUMBER: 560
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-324-0880
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REFERENCE/DOCKET NUMBER: TTT
TELECOMMUNICATION INFORMATION:
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: USSN 08
PTI.TNG DATE: 14 MARCH 1996
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APPLICANT:
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                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: LOW-TOXICITY HUMAN INTERFERON-ALPHA TITLE OF INVENTION: ANALOG
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                                                                                                        APPLICATION NUMBER: US/08/954,395A FILING DATE: Filed Herewith CLASTIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/631,328
FILING DATE: 12-APR-1996
                                                                                                                                                                                                               SOFTWARE: FastSEQ for Windows Version 2.0 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES:
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                                                                                                                                                                                                                                                                                                                                       COUNTRY:
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Liu, Philip T.
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Chung, Albert D.
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                                                                                                                                                                                                                                                                  IBM Compatible
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                                       5600-0001.35
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                            PILING DATE: 12-APR-1996
ATTORNEY/AGENT INFORMATION:
NAME: Dehlinger, Peter J
REGISTRATION NUMBER: 27008
REFERENCE/DOCKET NUMBER: 5600
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-324-0880
                                      INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 166 amino acid
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                                                                                                                                                                                     FILING DAIL. 435
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/631,328
APPLICATION 12-APR-1996
TWO DATE: 12-APR-1996
                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: LOW-TO-
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CITY: Palo Alto
                                                                                                                                                                                                                                                                                                             COMPUTER: IBM CONTROL OPERATING SYSTEM:
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                         TYPE: amino acids
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TOPOLOGY:
             STRANDEDNESS:
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                                                                                                  650-324-0960
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Chung, Albert D.
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 linear
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          single
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                                                                                                                                             5600-0001.35
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Pred. No. 0.12;
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         Matches
                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent No.
                                                                                                                                                                                                                                                                                               CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/631,328
FILING DATE: 12-APR-1996
ATTORNEY/AGENT INFORMATION:
NAME: Dehlinger, Peter J
REGISTRATION NUMBER: 27008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 11,
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                                                                                                    TOPOLOGY: line:
MOLECULE TYPE: pi
IMMEDIATE SOURCE:
                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: 56
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-324-0880
                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/954,395A
FILING DATE: Filed Herewith
                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
ADDRESSEE: Dehlinger & Associates
STREET: 350 Cambridge Ave., Suite
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION:
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      Local Similarity hes 8; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE:
                                                                                                                                                  TYPE: amino acid
STRANDEDNESS: sin
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                                                                                                                                                                                                                                            TELEFAX: 650-324-0960
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ZIP: 94306
                                                                                                                                                                                 CENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: Palo Alto
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                                                                                        HuIFN-alpha analog IFNa-Nl
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                                                                                                                                                                             166 amino acids
   100.0%; Score 42; DB 4; Length 166; ilarity 100.0%; Pred. No. 0.12; Conservative 0; Mismatches 0; Indels
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                                                                                                                                      linear
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                                                                                                                      protein
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Pred. No. 0.12;
 Mismatches
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Indels
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Gaps
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                                                          Matches
                                                                      Query Match
Best Local Similarity
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: Dehlinger, Peter J
REGISTRATION NUMBER: 27008
REFERENCE/DOCKET NUMBER: 5600
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-324-0880
                                                                                                                                                                                                                                                                                                                                                                                                                                                      OPERATING SYSTEM: DOS
SOFTWARE: FastSEO for Window
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/99
FILING DATE: Filed Herewith
                                                                                                                                                             IMMEDIATE SOURCE
                                                                                                                                                                              MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/6:
FILING DATE: 12-APR-1996
                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS
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MEDIUM TYPE: Diskett
131 LTEKKYSP 138
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                          1 LTEKKYSP 8
                                                                                                                                                                                            TOPOLOGY:
                                                                                                                                                                                                       TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                 TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET: 350 Camp
CITY: Palo Alto
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                                                                                                                                                                                                                                   LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION:
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                                                      Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                USA
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Chung, Albert D.
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Villarete, Loreli
                                                                                                                                                                                          linear
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                                                                                                                                                                            protein
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                                                                100.0%; Score 42; DB 4
100.0%; Pred. No. 0.12;
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for Windows Version 2.0
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                                                     Mismatches
                                                                                DB 4; Length 166;
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RESULT 19 US-08-954-395A-13

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Sequence 13, Application US/08954395A

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Query Match
Best Local Similarity
Best Secondaries 8; Conserve
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                                                                                                                     Sequence 14, Application US/08954395A Patent No. 6204022
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                            GENERAL INFORMATION:
APPLICANT: Johnson
APPLICANT: Subraman
APPLICANT: Pontzer
APPLICANT: Villare:
APPLICANT: Campos,
                                                                                                                                                                                                                                                                                                                                                   08-954-395A-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 08/6:
FILING DATE: 12-APR-1996
ATTORNEY/AGENT INFORMATION:
NAME: Dehlinger, Peter J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
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TELEPHONE: 650-324-0880
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LENGTH: 166 amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: 1: MOLECULE TYPE:
 APPLICANT:
APPLICANT:
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CLONE: Hulfn-alpha analog IFNa-N3
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REGISTRATION NUMBER: 2700
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REFERENCE/DOCKET NUMBER: 5600-0001.35
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                                                                                                                                                                                                                                                                            Conservative
Campos, Jackeline
Chung, Albert D.
Li, Wayne W.
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                                                                                                                                                                                                                                                                                                                                                                                                               linear
                                                Villarete, Lorelie H.
                                                             Subramaniam, Prem S. Pontzer, Carol H.
                                                                                           Johnson, Howard M.
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N: LOW-TOXICITY HUMAN INTERFERON-ALPHA
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                                                                                                                                                                                                                                                                                            Score 42; DB 4
Pred. No. 0.12;
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                                                                                                                                                                                                                                                                                                           DB 4; Length 166;
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                                                                                                                                                                                                                                                    ; Patent No.
                                                                                                                                                                                                                                                    Sequence 15, Application US/08954395A Patent No. 6204022
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 12-APR-1996
ATTORNEY/AGENT INFORMATION:
NAME: Dehlinger, Peter J
REGISTRATION NUMBER: 27008
REFERENCE/DOCKET NUMBER: 5600
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-324-0880
                                                                                                                                                                                                                                        GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Liu, Philip T.
TITLE OF INVENTION: LOW-TOXICITY HUMAN INTERFERON-ALPHA
TITLE OF INVENTION: ANALOG
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SOFTWARE: FASTSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
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PRIOR APPLICATION DATA:
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APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE:
                                                                  TITLE OF INVENTION: LÓW-TOXICITY HUMAN INTERFERON-ALPHA TITLE OF INVENTION: ANALOG NUMBER OF SEQUENCES: 35
                                                                                                                                                                                                        APPLICANT:
                                                       CORRESPONDENCE ADDRESS:
                                                                                                                                APPLICANT:
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                                                                                                                                                                                                                                                                                                                                            131 LTEKKYSP 138
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLONE:
 STREET: 300
TTTY: Palo Alto
                                                                                                                                                                                                                                                                                                                                                                        1 LTEKKYSP 8
STATE:
                           ADDRESSEE: Dehlinger & Associates LLP STREET: 350 Cambridge Ave., Suite 250
                                                                                                                                                                                                                                      INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94306
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HuIFN-alpha analog IFNa-N4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      350 Cambridge Ave., Suite 250
CA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     166 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IBM Compatible
                                                                                                                  Li, Wayne W.
Liu, Philip T.
                                                                                                                                               Campos, Jackelin
Chung, Albert D.
                                                                                                                                                                                Villarete,
                                                                                                                                                                                           Pontzer, Carol H.
                                                                                                                                                                                                           Subramaniam, Prem S.
                                                                                                                                                                                                                         Johnson, Howard M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
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12-APR-1996
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                                                                                                                                                                  Jackeline
                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 42; DB 4
100.0%; Pred. No. 0.12;
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                                                                                                                                                                           Lorelie H.
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                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 4; Length 166;
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COMPUTER READABLE FORM: MEDIUM TYPE: Diskett

COUNTRY:

94306

COMPUTER:

E: Diskette IBM Compatible

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US-08-954-395A-16
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GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/954,395A
                                                                                                                                                                                                                  APPLICANT: Li, Wayne APPLICANT: Liu, Phil TITLE OF INVENTION: TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO:
                                                                                                                                                  COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                        APPLICANT:
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CLONE: Hulfn-alpha analog Ifna-N5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: 56
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-324-0880
                                                                                                                                                                                                                                                                                                                                                                                                                                                             131 LTEKKYSP 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/631,328
FILING DATE: 12-APR-1996
ATTORNEY/AGENT INFORMATION:
                                           COMPUTER: IBM CONTROL OPERATING SYSTEM:
                                                                                                                                          ADDRESSEE: Deniing.
cTREET: 350 Cambridge Ave.,
                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 LTEKKYSP 8
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les 8; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Dehlinger, Pet
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/08/9: FILING DATE: Filed Herewith CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 166 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: 650-324-0960
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SOFTWARE: FastSEQ for Windows Version 2.0
                                                                                                        94306
                                                                                                                             CA
                                                                                                                                                                                                                                       Campos, Jackeline
Chung, Albert D.
Li, Wayne W.
Liu, Philip T.
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                                                                                                                    USA
                                                                                                                                                                                                                                                                                                   Villarete,
                                                                                                                                                                                                                                                                                                               Pontzer, Carol H.
                                                                                                                                                                                                                                                                                                                            Subramaniam, Prem S.
                                                        IBM Compatible
                                                                                                                                                                                                                                                                                                                                           Johnson, Howard M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                            Diskette
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                                                                                                                                                                                                                  ANALOG
                                                                                                                                                                                                                        LOW-TOXICITY HUMAN INTERFERON-ALPHA
                                                                                                                                                                                                                                                                                     Jackeline
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Peter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 42; DB 4
100.0%; Pred. No. 0.12;
                                                                                                                                                                                                                                                                                                   Lorelie H
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
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US-08-954-395A-17

; Sequence 17, Application US/08954395A

; Patent No. 6204022
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; CLONE: HuIFN-alpha analog IFNa-N6
US-08-954-395A-16
APPLICATION NUMBER: US/08/954,39
FILING DATE: Filed Herewith
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UNMBER: 08/631,328
FILING DATE: 12-APR-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
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APPLICANT: Johnso
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Liu, Phili
TITLE OF INVENTION: I
TITLE OF INVENTION: I
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
APPLICANT:
APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: Filed Herewit CLASSIFICATION: 435
PRIOR APPLICATION DATA: APPLICATION NUMBER: 08/631
FILING DATE: 12-APR-196
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                             OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
ARBITATION NUMBER OF THE PROPERTY OF
                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS
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REFERENCE/DOCKET NUMBER: 56
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-324-0880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE:
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                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                       COMPUTER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: Dehlinger & Associates LLP STREET: 350 Cambridge Ave., Suite 250
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les 8; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                      94306
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     USA
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Liu, Philip T.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Johnson, Howard M.
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                                                                                                                                                                                                                                                                                                                         IBM Compatible
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100.0%; Pred. No. 0.12;
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NAME: Dehlinger, Peter J REGISTRATION NUMBER: 270

27008

5600-0001.35

REFERENCE/DOCKET NUMBER:

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US-08-489-071A-16; Sequence 16, Application US/08489071A; Patent No. 6300474
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Best Local Similarity
~+~hes 8; Conserve
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; CLONE: Hulfn-alpha analog IfNa-N7
US-08-954-395A-17
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                                                             TELEFAX: 201 343-1684
TELEX: 133521
INFORMATION FOR SEQ ID NO: 16:
SEQUENCE CHARACTERISTICS:
LENGTH: 166 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 166 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/489,071A
FILING DATE: 09-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION: TELEPHONE: 650-324-0880
                                                                                                                                                                                                                                                                 CLASSIFICATION: 530
PAPILICATION DATA:
APPLICATION NUMBER: US 08/076,231
FILING DATE: 11-JUN-1993
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 16
CORRESPONDENCE ADDRESS:
ADDRESSEE: Klauber & Jackson
STREET: 411 Hackensack Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: PESTKA, SIDNEY
TITLE OF INVENTION: SUPER PROTEINS INCLUDING INTERFERONS,
TITLE OF INVENTION: INTERLEUKINS, ET AL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE:
                                                                                                                                                  TELECOMMUNICATION INFORMATION: TELEPHONE: 201 487-5800
TELEFAX: 201 343-1684
              TOPOLOGY: un MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/257,784
FILING DATE: 10-JUN-1994
HYPOTHETICAL:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: 411 Hack
CITY: Hackensack
STATE: New Jerse
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 650-324-0960
                                                                                                                                                                                                           NAME: Fehlner, Ph.D., Esq., Paul F.
REGISTRATION NUMBER: 35,135
REFERENCE/DOCKET NUMBER: 1705-1-002 CIPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: UZIP: 07603
                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
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                                                   amino acid
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                              unknown
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; IMMEDIATE SOURCE:
; CLONE: Hu-IFN-alpha001
US-08-489-071A-16
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US-09-339-913B-75
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Best Local Similarity
8; Conserve
                                                                                                    Db
                                                                                                                                                                                                                                                                                  , ORGANISM: consensus alpha interferon US-09-339-913B-75
Search completed: January 15, 2002, 08:40:28 Job time: 295 sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: Patten, Phillip
APPLICANT: Stemmer, Willem P.C.
APPLICANT: STEMMER, WILLEM P.C.
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR POLYPEPTIDE ENGINEERING
FILE REFERENCE: 02-020503US
                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 75
LENGTH: 166
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 75, Application US/09339913B Patent No. 6303344
                                                                                                                                                                                 Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 8; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR FILING DATE: 1994-02-17
PRIOR APPLICATION NUMBER: 08/425,684
PRIOR FILING DATE: 1995-04-18
PRIOR APPLICATION NUMBER: 08/537,874
PRIOR FILING DATE: 1995-10-30
NUMBER OF SEQ ID NOS: 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/339,913B CURRENT FILING DATE: 1999-06-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: 08/769,062
PRIOR FILING DATE: 1996-12-18
PRIOR APPLICATION NUMBER: 08/198,431
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                                                                                                                                                                                                        100.0%; Score 42; DB 4; Length 166; 100.0%; Pred. No. 0.12;
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Title:
Perfect score:
Sequence:
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Maximum Match 100%
Listing first 50 summaries
                                                                                                                                                                                                                                                                                                                                              Maximum DB seq length: 0
Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                   Searched:
                                                                                                                                                                                                                                                                                                                                                                                              al number of hits satisfying chosen parameters:
SPTREMBL_17:*

1: sp_archea:*
2: sp_bacteria:*
3: sp_fungl:*
4: sp_human:*
5: sp_invertebrate
6: sp_manmal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:*
12: sp_viruel:*
13: sp_vertebrate
14: sp_unclassifi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   January 15, 2002, 08:40:34; Search time 35.65 Seconds (without alignments) 32.824 Million cell updates/sec
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Gapop 10.0 , Gapext 0.5
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42
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.
              sp_plant:*
sp_rodent:*
sp_virus:*
sp_vertebrate:*
                                                                                                     sp_organelle:*
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 sp_unclassified:*
                                                                                                                                                                                                                                                                                                                                                                                                 473505
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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AMMO	
7	;

Result No.	Score	Match	Query Match Length 100.0 166	DB	ID Q9UMJ3
ω	42	100.0	189	4	Q14605
4	42	100.0	189	4	Q14639
σ	42	100.0	189	4	Q14607
6	36	85.7	108	σ	Q9N1U6
7	36	85.7	170	6	Q2911 <b>4</b>
8	36	85.7	170	6	Q29115
9	36	85.7	730	10	Q9S9M5
10	34	81.0	181	w	013619
11	34	81.0	577	5	035995
12	34	81.0	1154	G	Q9V6S9
13	33	78.6	110	10	Q9SYY5
14	33	78.6	334	N	Q9CKT2
15	33	78.6	767	11	Q9WTU7
16	32	76.2	83	σ	9M8A60
17	32	76.2	400	5	Q9VBY9
18	32	76.2	414	10	Q9SX74
19	32	76.2	573	σı	()

Query Match Best Local Similarity

100.0%;

Score 42; DB 4; Length 166; Pred. No. 0.65;

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Q90BRS Q61717 Q61718 Q61718 Q61718 Q61719 Q61719 Q61719 Q61719 Q61719 Q61719 Q76WB Q45137 Q946WB Q96679 P94124 Q96679 P94124 Q976WB Q97780 Q97	Q95022 Q91EU9 Q9F554 Q8F551 073583 Q90DE8 Q91GY3
Oggdrs chilli leaf Oggdrs mus musculu Oggdrs mus musculu Oggrs mus musculu Oggrs mus musculu Oggrs bacilius su Ogyfw8 homo sapien O45137 bacteroides Oggr4d2 escherichia P94679 bacilius su P94124 acinetobact O00875 fusarium so Oggr80 homo sapien O59114 pyrococcus Oggrs salmonella Ogrk66 streptomyce Oggmv4 bacilius an Oggrs streptomyce Oggms schizosacch O00089 aspergillus Ogys aspergillus Ogys aspergillus Ogys aspergillus	cryptospo cotton l scherich tomato l cotton l tomato l tobacco

### ALIGNMENTS

SQ	FT	XX	DR	DR	DR	DR	DR	DR	DR	DR	S	S	RL	RΤ	RT	RA	RX	RP	RN	0 X	ဂ္ဂ	ဂ္ဂ	SO	GN	DE	ŢΩ	DΤ	DT.	AC	IJ	RESULT Q9UMJ3
SEQUENCE 166 AA; 19386 MW; 4152EA2A/8361888 CRC64;	1 1	Antiviral; Cytokine.	PROSITE; PS00252; INTERFERON_A_B_D; 1.	SMART; SM00076; IFabd; 1.	ProDom; PD000550; Interferon_abd; 1.	PRINTS; PR00266; INTERFERONAB.	Pfam; PF00143; interferon; 1.	InterPro; IPR000471; Interferon_abd.	HSSP; P01563; 2HIE.	EMBL; M29884; AAA52714.1;	FAMILY.	-!- SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA	Nucleic Acids Res. 11:5661-5669(1983).	between related, cloned genes in E. coli.";	"Formation of genes coding for hybrid proteins by recombination	Weber H., Weissmann C.;	MEDLINE=83299241; PubMed=6310510;	SEQUENCE FROM N.A.	[1]		Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	Homo sapiens (Human).	IFNA.	IFNA PROTEIN (FRAGMENT).	17, Last	(TrEMBLrel. 13,	2000 (TrEMBLrel.	O9UMJ3;	Q9UMJ3 PRELIMINARY; PRT; 166 AA.	ILT 1

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LTEKKYSP LTEKKYSP 138

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131

Matches

8,

Conservative

0;

Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates; 

NCBI\_TaxID=9606; [1]

Apsalons U.;

Q14608

PRELIMINARY;

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SEQUENCE FROM N.A.

MEDLINE-86037205; PubMed-4057246;

Henco K., Brosius J., Fujisawa A., Fujisawa J.I., Haynes J.R.,

Hochstadt J., Kovacic T., Pasek M., Schamboeck A., Schmid J.,

Todokero K., Waelchli M., Nagata S., Weissmann C.;

"Structural relationship of human interferon alpha genes and ...
                                                                                                                                                                                                                                                                                                                                                    01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
INTERFERON-ALPHA 13 PRECURSOR.
                                                                                                                                                                     the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                     Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                        databases
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
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ID Q146 AC Q146 AC Q146 AC Q146 AC Q146 DT Q1-1 AC Q1-1 
       Db
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Matches 8
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Best Local S
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EMBL; X77593; CAA00632.1; -.
HSSP; P01563; 2HIE.
InterPro; IPR000471; Interferon_abd.
Pfam; PF00143; interferon; 1.
PRINTS; PR00266; INTERFERONAB.
ProDom; PD000550; Interferon_abd; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q14639 PRELIMINARY; PKT; 109 nn.
Q14639;
Q1.40V-1996 (TremBLrel. 01, Created)
O1-NOV-1996 (TremBLrel. 01, Last sequence up
O1-JUN-2001 (TremBLrel. 17, Last annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Saveliev V.I., Zlochovsky M.L., Sorokin A.V., Naroditskaya Bolotin A.P., Demyanova N.G., Kozlov Y.I., Neznanov N.S., Gazaryan K.G., Monastyrskaya G.S., Sverdlov E.D.; "[Cloning and the determination of the nucleotide sequences of human leukocyte interferons]."; Antibiot. Med. Biotekhnol. 31:592-596(1986).
                                                                                                                                                                                                                                                             Antiviral; Cytokine; SIGNAL 1
                                                                                                                                                                                                                                                                                                           SMART; SM00076; IFabd; 1.
PROSITE; PS00252; INTERFERON_A_B_D;
                                                                                                                                                                                                                                                                                                                                                            PRINTS; PR00266; INTERFERONAB ProDom; PD000550; Interferon_c
                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; M38289; AAA59165.1; -.
HSSP; P01563; 2HIE.
InterPro; IPR000471; Interferon_abd
Pfam; PF00143; interferon; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. MEDLINE=87024453; PubMed=3767336;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIGNAL
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PROSITE; PS00252; INTERFERON_A_B_D;

Antiviral; Cytokine; Signal.
                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                              CHAIN
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       154
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       LTEKKYSP 161
                                                   LTEKKYSP 8
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                                                                                                                    Similarity
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8; Conserv
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                                                                                                 Conservative
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                                                                                                                                                                                                                   AA;
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                                                                                                                                                                                                                                                                                                                                                         Interferon_abd;
                                                                                                                                                                                                                   189 I
21781 MW;
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Primates;
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21697 MW;
                                                                                                                                                                                                                                                                    ; Signal.
23
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                                                                                                                       100.
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                                                                                                 0;
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                                                                                              Score 42; DE
Pred. No. 0.7
0; Mismatches
                                                                                                                                                                                                                                            POTENTIAL
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Craniata; Ve
Catarrhini;
                                                                                                                                                                                                                   9D6E31870F1A88A1 CRC64;
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i; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0.74;
                                                                                                                       DB 4;
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                                                                                                                                               4;
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                                                                                                                                          Length 189;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sequences
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                                                                                                 0;
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                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                 0;
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NCBI\_TaxID=9606;

Submitted SEQUENCE

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Rostoks

FROM N.A. (JAN-1994)

Eukaryota; Metazoa; Mammalia; Eutheria;

Chordata;

Homo sapiens (Human).

Q14605; Q14605;

PRELIMINARY;

PRT;

189

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w

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Q14608;
Q1-NOV-1996 (TrEMBLrel. 01, Created)
Q1-NOV-1996 (TrEMBLrel. 01, Last sequence update)
Q1-JUN-2001 (TrEMBLrel. 17, Last annotation updat
LEUKOCYTE INTERFERON-ALPHA.
                                                                                  PRINTS; PR00266; INTERFERONAB.

ProDom; PD000550; Interferon_abd; 1.

SMARP; SM00076; IFabd; 1.

PROSITE; PS00252; INTERFERON_A_B_D; 1.

Antiviral; Cytokine; Signal.
                                                                                                                                                          EMBL; M28586; AAA36041.1; -.
HSSP; P01563; 2HIE.
InterPro; IpR000471; Interferon_abd
Pfam; PF00143; interferon; 1.
                                                                                                                                                                                                                                                "Novel human leukocyte interferon subtype alpha interferon genes.";
J. Interferon Res. 4:609-617(1984).
                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
MEDLINE=85056523; PubMed=6548765;
Gren E., Berzin V.M., Jansone I.,
                                                                                                                                                                                                                                     THE INTERFERON
            Score 42;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                  Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                  Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                      3DB45120764EBABC CRC64;
Mismatches
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               0
                           DB 4;
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                                                                                                                                                                                                                                                                                                                                                                                                                                             update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                  pseudogenes.";
J. Mol. Biol. 185:227-260(1985).
י מיטיו מפודא; BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
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SIMILARITY: BELONGS TO

Query Match
Best Local Similarity
Matches 8; Conserv

Conservative

0;

100.0%;

146

LTEKKYSP 153

1 LTEKKYSP

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SEQUENCE

181 AA;

;; Signal. 20878 MW;

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Best Local S
Matches 8
                                                                                                                                                                                                                                                                 Q9N1U6;
01-OCT-2000
01-OCT-2000
01-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
INTERFERON-ALPHA-J1 (IFN-ALPHA-J1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q14607;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                   EMBL; AF135017; AAF29603.1; -.
InterPro; IPR000471; Interferon_abd.
Pfam; PF00143; Interferon; 1.
PFINTS; PR00266; INTERFERONABLE
                                                                                                Caetano A.R., Shiue Y.L., Lyons L.A., O'Brien S.J., Laug Bowling A.T., Murray J.D.;
"A comparative gene map of the horse (Equus caballus).";
Genome Res. 9:1239-1249(1999).
                                                                                                                                                                                     Eukaryota; Metazoa; Mammalia; Eutheria; NCBI_TaxID=9796;
                                                                                                                                                                                                                                                                                                                  Q9N1U6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRINTS; PR00266; INTERFERONAB.
ProDom; PD000550; Interferon_abd; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Cloning, expression and biological activity interferon alpha identified in virus induced Dev. Biol. 60:111-122(1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. MEDLINE=86005847; PubMed=2995168;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SMART; SM00076; IFabd; 1.
PROSITE; PS00252; INTERFERON_A_B_D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro; IPR000471; Interferon_abd
Pfam; PF00143; interferon; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Shafferman A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cohen S., Velan B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (Human)
           ProDom;
                                                                                    -! - SIMILARITY: BELONGS
                                                                                                                                                 MEDLINE=20082971; PubMed=10613847;
                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                            Equus caballus (Horse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Antiviral; Cytokine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=9606;
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154 LTEKKYSP 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY: BELONGS TO THE INTERFERON ALPHA,
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 SM00076;
PD000550; Interferon_abd; 1.
SM00076; IFabd; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
8; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               189 AA;
                                                                                                                                                                                                                                                     ALPHA-1 (FRAGMENT).
                                                                                                                                                                                                                                                                (TrEMBLrel.
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                                                                                                                                                                                                                                                                                         (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                   Perissodactyla;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Grosfeld H.,
                                                                                                                                                                                                  Chordata; Craniata; Verte
Perissodactyla; Equidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22048 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%;
                                                                                                                                                                                                                                                                 15, Created)
15, Last sequence
17, Last annotation
                                                                                     TO THE
                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                 Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 42; DB Pred. No. 0.7 pred. No. 0.7
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                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2AF6F48447BB72B3 CRC64;
                                                                                     INTERFERON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Shalita Z.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       189
                                                                                                                                                                                                                                                                                                                    108 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                             0.74;
                                                                                                                                                                                                               Vertebrata; Euteleostomi;
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                                                                                                                                                                                                                                                                             update)
                                                                                     ALPHA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of a new variant of human lymphoblastoid cells.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Leitner M.,
                                                                                                                                                                                                   Equus
                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 189;
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                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                     Laughlin T.F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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RESULT Q29115

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Best Local
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Best Local
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                                                                                          VARIANT
SEQUENCE
                                                                                                               CHAIN
VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Antiviral; Cytokine.
NON_TER 1
NON_TER 108 1
                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa;
Mammalia; Eutheria;
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01-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q29114;
01-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q29114
                                                                                                                                                                                                                    EMBL; Z22706; CAA80407.1;
HSSP; P01563; lITF.
                                                                                                                                                                                                                                                                                            TISSUE=WHOLE CONCEPTUS (EMBRYO PLUS TROPHOBLAST); MEDLLNE=86232600; PubMed=3714490;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sus scrofa (Pig).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SHORT TYPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00252; INTERFERON_A_B_D;
                                                                                                                                    Antiviral; Cytokine; Signal. SIGNAL 1 21
                                                                                                                                                                   SMART;
                                                                                                                                                                             PRINTS; PR00266; INTERFERONAB. ProDom; PD000550; Interferon_s
                                                                                                                                                                                                InterPro; IPR000471; Interferon_abd.
Pfam; PF00143; interferon; 1.
                                                                                                                                                                                                                                                              "A new method for predicting signal sequence cleavage sites."; Nucleic Acids Res. 14:4683-4690(1986).
                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                       trophoblast during early pregnancy.";
J. Biol. Chem. 268:19760-19768(1993).
                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=93374975; PubMed=7690039;
                                                                                                                                                                                                                                                                                                                                                                                           TISSUE=WHOLE CONCEPTUS (EMBRYO PLUS
                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9823;
                                                                                                                                                         PROSITE; PS00252;
                                                                                                                                                                                                                                         -!- SIMILARITY: BELONGS FAMILY.
                                                                                                                                                                                                                                                                                    von Heijne G
                                                                                                                                                                                                                                                                                                                                                           Lefevre F., Boulay V.;
"A novel and atypical type one interferon
146 LKEKKYSP 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95 LQEKKYSP 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 LTEKKYSP
                   1 LTEKKYSP 8
                                                                                                                                                                  SM00076;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity 87. 7; Conservative
                                       Similarity 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 108 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (TrEMBLrel. 01, Created)
(TrEMBLrel. 01, Last sequence update)
(TrEMBLrel. 17, Last annotation update)
I INTERFERON PRECURSOR.
                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                22
88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                           AA;
                                                                                                                                                                IFabd; 1.
                                                                                                                                                        INTERFERON_A_B_D; 1.
                                                                                                              170
88
                                                                                           101 IW;
                                                                                                                                                                                                                                                                                                                                                                                                                                   Chordata; Craniata; Vertebrata; Euteleostomi; Cetartiodactyla; Suina; Suidae; Sus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12420
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87.5%;
                                                  85.7%;
87.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                        0;
                                                                                                    SHORT TYPE I INTERFERON
S -> G.
N -> T.
                                                  Score 36; DB Pred. No. 11;
                                                                                                                                     POTENTIAL
                                                                                           FED195EAFDD99AAB CRC64;
                                                                                                                                                                                                                                                      INTERFERON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 028CA54FFA97F4CD CRC64;
                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  170
                                                                                                                                                                                                                                                      ALPHA,
                                                                                                                                                                                                                                                                                                                                                            gene
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                                                            6;
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                                                            Length 170;
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                                         Gaps
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Q29115 Q29115;

PRELIMINARY;

NCBI\_TaxID=9823; [1]

Sus scrofa (Pig)

SHORT TYPE I INTERFERON 01-NOV-1996 (TrEMBLrel. 01-NOV-1996 (TrEMBLrel. 01-JUN-2001 (TrEMBLrel.

01, 01, 17,

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SEQUENCE FROM N.A.
STRAIN-LARGE WHITE BREED; TISSUE-LIVER;
TIRE-86232600; PubMed-3714490;
Arabidopsis thaliana (Mouse-ear cress).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosid
eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; 222707; CAA80408.1; -. HSSP; P01563; 1ITF. Interferon_abd Pfam; PF00143; interferon; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Singer D.S., Parent L.J., Ehrlich R.;
"Identification and DNA sequence of an inters
element in the genome of the miniature swine.
Nucleic Acids Res. 15:2780-2780(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN=LARGE WHITE BREED; TISSUE=LIVER; MEDLINE=87174805; PubMed=3550702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS00252; INTERFERON_A_B_D; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRINTS; PR00266; INTERFERONAB ProDom; PD000550; Interferon_a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     trophoblast during early pregnancy.";
J. Biol. Chem. 268:19760-19768(1993).
-!- SIMILARITY: BELONGS TO THE INTERF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN-LARGE WHITE BREED; TISSUE-LIVER; MEDLINE-93374975; PubMed=7690039;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "A novel and atypical type one interferon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 for predicting signal sequence cleavage sites Res. 14:4683-4690(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Interferon_abd;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19863 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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Last annotation updat
                                                                                                                                                 Last sequence update)
Last annotation updat
                                                                                                                                                                                                 Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 36; DB Pred. No. 11; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POTENTIAL.
SHORT TYPE I INTERFERON.
; 563F7D2AE716AF51 CRC64;
                                                                                                                                                                                                                                                   PRT;
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Best Local :
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O13619;
O1-JAN-1998 (TrEMBLrel. 05, C
O1-JAN-1998 (TrEMBLrel. 05, L
O1-JUN-2001 (TrEMBLrel. 17, L
PIO28 PROTEIN (HYPOTHETICAL 2
PIO28 OR SPBP22H7.03.
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SEQUENCE FROM N.A.
STRAIN-CV. COLUMBIA
Y Yn G., S;
                                             Murphy L., Harris D., Wood V.,
Submitted (APR-2001) to the EM
EMBL; AB004535; BAA21407 l; -.
EMBL; AL590883; CAC37371.1; -.
                                                                                                                                                                                                                  Kushida N., Yamazaki S., Tanaka T., Jinno K., Haikawa Y., Yama
Yamamoto S., Sekine M., Oguchi A., Nagai Y., Sakai M., Aoki K.
Ogura K., Otsuka R., Kudoh Y., Yanagida M., Machida M., Zhang
Submitted (MAY-1997) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Fungi; Ascomycota; Schizosaccharomycete
Eukaryota; Fungi; Ascomycota; Schizosaccharomycetaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Liu S.X., Yu G., Sakano H., Jhaveri A., Lee J.M., Lenz C., Pham P., Toriumi M., Chin C., Chiou J., Choi E., Chung M., Gonzalez A., Howng B., Koo T., Li J., Liu A., Vaysberg M., Altafi H., Brooks S., Buehler E., Chao Q., Conn L., Conway A., Hansen N., Johnson-Hopson C., Khan S., Kim C., Lam B., Nguyen M., Palm C., Shinn P., Tambunga G., Davis R.W., Ecker J.R., Federspiel N.A., Theologis A.; "The sequence of BAC T24D18 from Arabidopsis thallana chromosome 1."; Submitted (SEP-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                    STRAIN-972 H-;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Schizosaccharomyces pombe (Fission yeast)
  Hypothetical
SEQUENCE 18
                                                                                                                                                 STRAIN-972H-;
                                                                                                                                                                       SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=4896;
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InterPro; IPR002290; Ser_thr_kin_actsite.
Pfam; PF00069; pkinase; 1.
SMART; SM00221; STYKC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.
-!- SIMILARITY: TO THE SER/THR FAMILY OF PROTEIN KINASES EMBL; AC010924; AAF18507.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATP-binding; Serine/threonine-protein kinase; Ty SEQUENCE 730 AA; 81210 MW; B51DB48D995C73B5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE; PS50011; PROTEIN_KINASE_DOM; PROSITE; PS00108; PROTEIN_KINASE_ST; 1
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| 224 LTDKRYSP
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  al protein.
181 AA; 2
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75.0%;
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  2D6A1B61F0FD51E8 CRC64;
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3J databases
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FAMILY

SEQUENCE FROM N.A

Lefevre F., Boulay V.;

SEQUENCE FROM N.A Nucleic Acids [2] "A new method

T24D18.20.

NCBI\_TaxID=3702;

Q9S9M5; 01-MAY-2000 (TrEMBLrel. 13, 01-MAY-2000 (TrEMBLrel. 13, 01-JUN-2001 (TrEMBLrel. 17, T24D18.20 PROTEIN.

Q9S9M5

PRELIMINARY;

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146

LKEKKYSP 153

1 LTEKKYSP 8

Query Match Best Local S Matches 7

Similarity 7; Conserv

85.7%;

Conservative

SEQUENCE SIGNAL

170 AA;

22

170

Antiviral; Cytokine;

ProDom; PD000550; Intes SMART; SM00076; IFabd;

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RESULT
035995
ID 03
AC 03
DT 01
DT 01
DT 01
DT 01
OS VA
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Q9V6S9
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Interpro; IPR001023; HSP70.
Pfam; PF00012; HSP70; 1.
PROSITE; PS00239; HSP70_1; 1.
PROSITE; PS00329; HSP70_2; 1.
SEQUENCE 577 AA; 64744 MW;
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01-MAY-2000 (Trem
01-MAY-2000 (Trem
CG18368 PROTEIN.
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01-JAN-1998
                                                               Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,
Amanatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F.,
George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
Sutton G.G., Wortman J.R., Yandeell M.D., Zhang Q., Chen L.X.,
Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,
Wan K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
Mahlis, D., Andrews-Pfannkoch C., Baldwin D.,
Baller, D., Bayani A., An H.-J., Andrews-Pfannkoch C., Baldwin D.,
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Curr. Biol. 7:0-0(1997)
                                                                                                                                                                                                                                      Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta; Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
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01-JUN-2001
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           Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E., Beeson K.Y., Bernos P.V., Bernan B.P., Bhandari D., Bolshakov S., Borkova D., Botthan M.R., Bouck J., Brokstein P., Brottler P., Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandri
                                                                                                                                                                  STRAIN-BERKELEY;
MEDLINE-20196006; PubMed-10731132;
                                                                                                                                                                                                                                                                                                                                                                      Q9V6S9;
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Pred. No.
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Davenport L.B.
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  Davies P.,
                Chandra I.
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RA Fosler C., Gabrielian A.E., Garg N.S., Gelbart W.M., Glasser K., Ra Glodek A., Gong F., Gorrell J.H., Gu Z., Gunnart W.M., Glasser K., Ra Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J., RA Hostin D., Houston K.A., Howland T.J., Wei M.-H., Ibeywam C., RA Jalali M., Kalush F., Karpen G.H., Ke Z., Kennison J.A., Ketchum K.A., RA Jalali M., Kalush F., Karpen G.H., Ke Z., Kennison J.A., Ketchum K.A., RA Jalali M., Kalush F., Karpen G.H., Ki, Li Z., Liang Y., Lin X., RA Liu X., Mattel B., McIntosh T.C., McLeod M.P., McPherson D., RA Mount S.M., Moy M., Murphy B., Murphy L., Muzny D.M., Nelson D.L., RA Merkulov G., Milshina N.V., Mobarry C., Morris J., Moshrefi A., RA Mount S.M., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M., Pittman G.S., Pan S., Pollard J., Puri V., Reese M.G., RA Ra Nelson D.R., Pittman G.S., Pan S., Pollard J., Puri V., Reese M.G., RA Shue B.C., Siden-Kiamos I., Simpson M., Strong R., Sun E., Spier E., Spradling A.C., Stapleton M., Strong R., Sun E., Spier E., Spradling A.C., Stapleton M., Strong R., Sun E., RA Wang Z.-Y., Wassarman D.A., Weinstock G.M., Weissenbach J., RA Williams S.M., Woodage T., Worley K.C., Wu D., Yang S., Yao Q.A., RA Williams S.M., Woodage T., Worley K.C., Wu D., Yang S., Yao Q.A., RA Zheng X.H., Zhong F.N., Zhong W., Zhou X., Zhu X., Smith H.O., RA Zheng S.H., Zhong F.N., Zhong W., Zhou X., Zhu S., Zhu X., Smith H.O., RA Zheng S. Pan S., Rubin G.M., Venter J.C.; "The genome sequence of Drosophila melanogaster.";

EMBL, AR0033864; CG18368.

DR FlyBase; FBgn0033864; CG18368.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
Q9SYY5
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Best Local
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Q9SYY5;
01-MAY-2000
01-MAY-2000
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Fosler
                                                                                                                                                                                                                            Bevan M.,
Schueller
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Dodson K., Doup L.E.,
                                                                                                                                                                                                                                                                                                               Eukaryota; Viridiplantae; Streptophyta; Embryophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core e
eurosids II; Brassicales; Brassicaceae; Arabidops's.
              EMBL; AL16158
Hypothetical
                                                 EU Arabidopsis sequencing project; Submitted (MAR-2000) to the EMBL/GEMBL; 299708; CAB16837.1; -.
                                                                                                                                    EU Arabidopsis sequencing project;
Submitted (APR-1999) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                             Submitted
                                                                                                                                                                                                                                                                                               NCBI_TaxID=3702;
                                                                                                                                                                                                                                                                                                                                                                    Arabidopsis thaliana (Mouse-ear cress).
                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
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                                  AL161589; CAB80322.1;
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 l protein
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 13189 MW;
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85.7%;
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Downes M., Dugan-Rocha S., Dunkov
                                                                                                                                                                                                           the
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                                                                     EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                             EMBL/GenBank/DDBJ
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                                                                                                                                                                                                                                              Heijnen L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
82DA67BF97311BA8 CRC64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              110 AA
                                                                                                                                                                                                                                                                                                                                   Embryophyta; Tracheophyta;
edons; core eudicots; Rosid
                                                                                                                                                                                                                                                Mewes
                                                                                                                                                                                                             databases
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1154;
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                                                                                                                                                                                                                                              Mayer K.F.X.,
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RESULT 15
Q9WTU7
ID Q9WTU7
AC Q9WTU7
AC Q9WTU7
DT 01-NOV
DT 01-NOV
DT 01-UNOV
DT APOPTO
GN PDCD11
CS MUS MU
CC ELKARY
OC Mammal
OX MCBI_T
RN [1]
RP SEQUEN
RX MEDLIN
RX MEDLIN
RX LACANA
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RT "Regul
RT "Regul
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RL NAL. W
DR EMBL;
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Q9CKT2
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                                                                                                                                                                                                                                                                                                                Q9WTU7 PRELIMINARY;
Q9WTU7;
01-NOV-1999 (TrEMBLrel. 12, C:
01-NOV-1999 (TrEMBLrel. 12, L:
01-JUN-2001 (TrEMBLrel. 17, L:
APOPTOSIS-LINKED PROTEIN 4, DI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q9CKT2
Q9CKT2;
Q1-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRINTS; PRO0032; HTHARAC.

SMART; SM00342; HTH_ARAC; 1.

PROSITE; PS00041; HTH_ARAC_FAMILY_1; UNKNOWN_1.

PROSITE; PS01124; HTH_ARAC_FAMILY_2; 1.

Complete proteome; DNA-binding; Transcription regulation.

SEQUENCE 334 AA; 39714 MW; 8532929C52246503 CRC64;
                       Nat. Med. 5:542-547(1999).
EMBL; AF055668; AAD20941.1;
                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                      Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                           PDCD11 OR ALG-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MAY B.J., Zhang Q., Li L.L., Paustian M.L., Whittam T.S., Kapur V.; "Complete genomic sequence of Pasteurella multocida Pm70."; Proc. Natl. Acad. Sci. U.S.A. 98:3460-3465(2001).
-1- SIMILARITY: BELONGS TO THE ARAC/XYLS FAMILY OF TRANSCRIPTIONAL
                                                              linked gene 4.";
                                                                                          "Regulation
                                                                                                          MEDLINE=99244237; PubMed=10229231;
Lacana' E., D'Adamio L.;
                                                                                                                                                           SEQUENCE FROM
                                                                                                                                                                                                     NCBI_TaxID=10090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro; IPR000005; HTHAraC. Pfam; PF00165; HTH_AraC; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN-PM70
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01-JUN-2001
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; AE006189; AAK03608.1;
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  P05055; 1SRO
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                                                                                     of fas ligand expression
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100.0%;
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DELTAC FORM (FRAGMENT).
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Last annotation update)
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Pred. No.
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Pred. No.
                                                                                                                                                                                                                          Craniata; Vertebrata; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
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29;
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RA Adamstides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F.,
RA Amanatides P.G., Scherer S.E., Richards S.A., Ashburner M., Henderson S.N.,
RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA Button G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Burdon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfelffer B.D.,
RA Barandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfelffer B.D.,
RA Barandon R.C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
RA Barandon R.C., Boster E.G., Helt G., Nelson C.R., Miklos G.L.G.,
RA Ballew R.M., Basu A., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
RA Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
RA Beeson K.Y., Benos P. V., Berman B.P., Bhandari D., Bolshakov S.,
RA Borkova D., Botchan M.R., Bouck J., Brockstein P., Brottier P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenoport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenoport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenoport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenoport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenoport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenoport L.B., Davies P.,
RA Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,
RA Dodson K., Doup L.E., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,
RA Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,
RA Kimmel B.E., Kodira C.D., Kraft C., Kranison J.A., Ketchum K.A.,
RA Kimmel B.E., Kodira C.D., Kraft C., Kranison J.A., Ketchum K.A.,
RA Mount S.M., Muyn M., Muphy L., Muzny D.M., Nelson D.L.,
RA Palazolo M., Pittman G.S., Pan S., Pollard J., Puri V., Reese M.G.,

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Best Local
Williams S.M., Woo
Ye J., Yeh R.-F.,
Zheng X.H., Zhong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SMART; SM00316;
NON_TER 1
NON_TER 767
                                                                                          Shue B.C., Siden-Kiamos I., Simpson M., Skupski M.P., Smith T., Spier E., Spradling A.C., Stapleton M., Strong R., Sun E., Svirskas R., Tector C., Turner R., Venter E., Wang A.H., Wang X., Wang Z.-Y., Wassarman D.A., Weinstock G.M., Weissenbach J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-MAY-2000 (TrEMBLrel. 13, 01-MAY-2000 (TrEMBLrel. 13, 01-MAY-2000 (TrEMBLrel. 13,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=20196006;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ephydroidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CG16926
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-MAY-2000
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InterPro; IPR000110; Ribosomal_S1.
InterPro; IPR003029; S1.
Pfam; PF00575; S1; 4.
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SM00316; S1;
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767
M., Woodage T., Worley K.C., Wu D., Yang S., Yao R.-F., Zaveri J.S., Zhan M., Zhang G., Zhao Q., Zhong F.N., Zhong W., Zhou X., Zhu S., Zhu X.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               æ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PubMed=10731132;
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84512 MW;
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100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
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Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 767;
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                                                                     Yao Q.A.,
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RESULT
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RA Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D., RA Adams M.D., Celniker S.E., Holt R.A., Howkins R.A., Galle R.F., RA George R.A., Levis S.E., Richards S., Ashburner M., Henderson S.N., Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X., Ra brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D., RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D., RA Ballew R.M., Doyle C., Barker E.G., Helt G., Nelson C.R., Miklos G.L.G., Ra Ballew R.M., Basun A., Baxendale J., Bayraktaroglu L., Beasley E.M., Ra Below R.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S., Ra Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottler P., Ra Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottler P., Ra Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottler P., Ra Ge Pablos B., Delcher A., Deng Z., Mays A.D., Dew I., Dietz S.M., Roder R., College S., Dahlke C., Davenport L.B., Davies P., Ra Ge Pablos B., Delcher A., Deng Z., Mays A.D., Dew I., Dietz S.M., Roder C., Gabrielian A.E., Garg N.S., Gelbart W.M., Glasser K., Gong E., Gorrell J.H., Gu Z., Guan P., Harris M., Glasser K., Gong E., Gorrell J.H., Gu Z., Guan P., Harris M., Jalaii M., Ralush F., Karpen G.H., Ke Z., Kennison J.A., Ketchum K.A., Alasko P., Lei Y., Levitsky A.A., Li J., Li Z., Liang Y., Lin X., Markulo Y.G., Milshina N.V., Mobarry C., Morris J., Moshrefi A., Ra Melson D.R., Nelson K.A., Nixon K., Nuskern D.R., Moshrefi A., Ra Nelson D.R., Nelson K.A., Nixon K., Nuskern D.R., Bacleb J.M., Ra Hander J.K., Pacleb J.M., Shue B.C., Siden-Kiamos I., Singson M., Skupski M.P., Saith T., Ra Ra Spier E., Spradling A.C., Stapleton M., Strong R., Sun B., Shen H., Shu B.C., Theng T.Y., Worley K.C., Wu D., Yang S., Yao Q.A., Ra Shue B.C., Siden-Kiamos I., Shong W., Zhang G., Zhao Q., Zheng L., Sheng L., Zhan M., Zhang G., Zhao Q., Zheng L., Stein H.O., Sheng L., Shith H.O., Shith H.O., Smith H.O., Shith H.O., Sh
             Matches
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Best Local Similarity
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01-MAY-2000
01-MAY-2000
01-JUN-2001
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"The genome sequence of Drosophila melanogaster.";
Science 287:2185-2195(2000).
EMBL; AE003795; AAR57541.1; -.
ElyBase; FBgn0040732; CG16926.
SEQUENCE 83 AA; 9420 MW; 43A99D5F8BC2B680 CRC6
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Drosophila melanogaster (Fruit fly).

Drosophila melanogaster (Fruit fly).

Pracheata; Hexapoda; Insecta;

Pracheata; Muso
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Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
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(TrEMBLrel. 13, Last sequence (TremBLrel. 17, Last annuments)
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62.5%;
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Last annotation update)
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Pred. No.
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Q9SX74;
01-MAY-2000
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InterPro; IPR003889; FYrich_C.
InterPro; IPR003888; FYrich_N.
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SMART; SM00541; FYRN; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN-CV. COLUMBIA;
Vysotskia V.S., Schwartz J.R., Yu G., Toriumi M., Lenz C., Liu Vysotskia V.S., Schwartz J.R., Yu G., Toriumi M., Lenz C., Liu Lee J.M., Li J., Li J., Gonzale A., Liu A., Liu K., Vaysberg M. Sakano H., Chin C., Choi E., Chiou J., Altafi H., Araujo R., Sakano H., Chin C., Chiou J., Altafi H., Araujo R., Barooks S., Buehler E., Chao Q., Conn L., Conway A.B., Dunn P., Hansen N., Howng B., Huizar L., Khan S., Kim C., Palm C., Rowle Shinn P., Walker M., Davis R.W., Ecker J.R., Federspiel N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Arabidopsis thaliana (Mouse-ear cress).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatóphyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae;
eurosids II; Brassicales; Brassicaceae; Arabidopsis.
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Cheuk R., Shinn P., Brooks S., Buehler E., Chao Q., Johnson-Hopson C., Khan S., Kim C., Altafi H., Bei B., Chin C., Chiou J., Choi E., Conn L., Conway A., Gonzalez A., Hansen N., Howing B., Koo T., Lam B., Lee J., Lenz C., Li J., Liu A., Liu J., Liu S., Mukharsky N., Nguyen M., Palm C., Pham P., Sakano H., Schwartz J., Southwick A., Thaveri A., Toriumi M., Vaysberg M., Yu G., Davis R., Federspiel N., Theologis A., Ecker J.;
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39267; CG13649.
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Pred. No. 1.6e+02;
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Q95022;
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Q23323;
Q1-NOV-1996
Q1-NOV-1996
Q1-JUN-2001
                                      01-FEB-1997 (TrEMBLrel.
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01-JUN-2001 (TrEMBLrel.
                    P-ATFASE.
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EMBL; Z75553; CAA99950.1; -.
InterPro; IPR002213; UDPGT.
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Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea; Rhabditidee; Peloderinae; Caenorhabditis.
NCBI_TaxID=6239;
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Submitted (AUG-1996) to the EMBL/GenBank/DDBJ da:
EMBL; U65981; AAC47833.1; -.
HSSP; P04191; 1EUL.
InterPro; IPR001757; E1-E2_ATPase.
InterPro; IPR001494; Hydrolase.
Pfam; PF00122; E1-E2_ATPase; 1.
Pfam; PF00123; Hydrolase; 1.
Pfam; PF00703; Hydrolase; 1.
PRINTS; PR00119; CATATPASE_E1_E2; UNKNOWN_1.
  Q9F554;
01-MAR-2001
                                                   Q9F554
                                                                                                                                                                                                                                                                                                                                                                                                                                          Sanz A.I., Fraile A., Garcia-Arenal F., Zhou X., Robinson D.J., Khalid S., Butt T., Harrison B.D.;
"Multiple infection, recombination and genome relationships among begomovirus isolates found in cotton and other plants in Pakistan. J. Gen. Virol. 81:1839-1849(2000).
EMBL; AJ270861; CAB97098.1;
InterPro; IPR002511; Gemini_VI.
Pfam; PF01524; Gemini_VI; 1.
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NON_TER 60 60
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01-JUN-2001
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01-OCT-2000
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Eukaryota; Alveolata; Apicomplexa; Coccidia; Eimeriida;
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1 (TremBLrel. 17,
(TrEMBLrel. 16,
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75.0%;
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Pred. No.
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01-NOV-1996 (TrEMBLrel. 01,
01-NOV-1996 (TrEMBLrel. 01,
01-JUN-2001 (TrEMBLrel. 17,
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SEQUENCE
                                                                                                    Coat protein.
SEQUENCE 118 AA;
                                                                                                                      ProDom; PD002978; Gemini_V1; 1.
                                                                                                                                    Submitted (OCT-1995) to the EMBL/GenBank/DDBJ databases EMBL; U38239; AAB008928.1; -. InterPro: IPR002511; Gemini_V1.
Pfam; PF01524; Gemini_V1; 1.
                                                                                                                                                                                  STRAIN-BANGALORE II, INDIA;
Chatchawankanphanich O., Chiang B.T.,
Mehta P., Maxwell D.P.;
                                                                                                                                                                                                                                                     Tomato yellow leaf curl virus (TYLCV).
Viruses; ssDNA viruses; Geminiviridae; Begomovirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sampei G., Motomura K., Masuda S., Yamaguchi T., Ando K., Oishi Furuya N., Komano T., Mizobuchi K.; "Organization and diversification of plasmid genomes: complete nucleotide sequence of the R721 genome.";
                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                           NCBI_TaxID=10832;
                                                                                                                                                                                                                                                                                         PRECOAT PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pfam; PF01402; HTH_4; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Nucleotide sequence of the R721 shufflon.";
Dacteriol. 174:7053-7058(1992).
EMBL; AP002527; BBBL3623-1;
InterProj. IPR002145; CopG_HTH_4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=93015772; PubMed=1400257; Kim S., Komano T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases
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LVEKTYSP 34
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                                             Similarity 6; Conser
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                                             Conservative
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75.0%;
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Pred. No.
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Pred. No. 76;
3; Mismatches
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79;
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Q9QDE8
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Matches 6
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O9ODE8;
01-MAY-2000 (TTEMBLICE1. 1
01-MAY-2000 (TTEMBLICE1. 1
01-JUN-2001 (TTEMBLICE1. 1
                Tsai W.S., Nakhla M.K., Maxwell D.P., Rashid M.H., Green S.K.; Submitted (SEP-1999) to the EMBL/GenBank/DDBJ databases. EMBL; AF186481; AAF04835.1; -. InterPro; IPR002511; Gemini_V1. Pfam; PF01524; Gemini_V1; 1. Pfam; PF01524; Gemini_V1; 1.
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01-AUG-1998
01-JUN-2001
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Coat protein. spoueNCE 118 AA;
                                                                                          STRAIN-TLCV-BD2
                                                                                                                                         "Molecular comparison of two
Bangladesh.";
                                                                                                                                                                Green S.K.;
                                                                                                                                                                           Shih S.L.,
                                                                                                                                                                                                                     tomato leaf curl geminivirus.
Viruses; ssDNA viruses; Geminiviridae;
NCBI_TaxID=28350;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=98227943; PubMed=9568988; Zhou X., Liu Y., Robinson D.J., Harrison B.D.; Thu Y., Robinson D.J., Harrison B.D.; "Four DNA-A variants among Pakistani isolates of cotton leaf curl virus and their affinities to DNA-A of geminivirus isolates from okra.";
                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                       STRAIN=TLCV-BD2;
                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                       PRE-COAT
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pfam; PF01524; Gemini_V1; 1.
ProDom; PD002978; Gemini_V1; 1.
SEQUENCE 118 AA; 13721 MW;
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                                                                                                                            Baohuxue Hui Huikan 40:436-437(1998).
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                                                                                                                                                                         Tsai W.S.,
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  13704 MW; FD978795A13FE443 CRC64;
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Query Match
Query Match
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And Similarity
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Perfect score:
Sequence:
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100059 seqs, 36664827 residues
                                                                                                           US-09-424-080A-1
                                                                                                                                                           January 15, 2002, 08:40:04; Search time 12.84 Seconds (without alignments) 22.844 Million cell updates/sec
                                 BLOSUM62
Gapop 10.0 , Gapext 0.5
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Maximum DB seq length: 0
Maximum DB seq length: 2000000000

al number of hits satisfying chosen parameters:

100059

Searched:

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 50 summaries

Database : SwissProt\_39:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result NO. 1 2 3 4 5	Score 42 42 42 42 42	.00.00 PT	Length DB 	1	ID INA1_HUMAN INA4_HUMAN INA5_HUMAN INA5_HUMAN INA6_HUMAN INA6_HUMAN	Description P01562 home P05014 home P05013 home P05013 home P05013 home P05013 home P05013 home
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69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4
221	217	209	209	195	195	195	189	1391	1294	884	884	883	879	726	383	373
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RAN_VICFA	FRA1_VIBFI	RANB_LOTJA	RANA_LOTJA	INT_GIRCA	INO2_HORSE	INO1_HUMAN	INAF_HUMAN	RPOB_MYCPN	RRPO_WCMVO	DPOL_WHV8I	DPOL_WHV7	DPOL_WHV8	DPOL_WHV1	NU84_YEAST	COS7_YEAST	Y085_METJA
P38548 vicia faba	P46072 vibrio fisc	P54766 lotus japon			-	P05000 homo sapien	٠.	P78013 mycoplasma	P15402 white clove	P17396 woodchuck h	P12898 woodchuck h	P06275 woodchuck h	P03160 woodchuck h	P52891 saccharomyc	Q07788 saccharomyc	Q57550 methanococc

## ALIGNMENTS

CCCCCCCRTTA	RP RA RE	RRI RRI RRI RRI RRI	RRA RA	RESULT INA1_H ID ID P AC P DT 2 DT 2 DT 2 DT 2
TOGOROTO K., KIONESIS D., WEISSMANN C.;  "Two non-allelic human interferon alpha genes with identical coding regions.";  EMBO J. 3:1809-1812(1984).  - FUNCTION: PRODUCED BY MACROPHAGES, IFN-ALPHA HAVE ANTIVIRAL ACTIVITIES. INTERFERON STIMULATES THE PRODUCTION OF TWO ENZYMES:  - A PROTEIN KINASE AND AN OLIGOADENVLATE SYNTHETASE.  - I- MISCELLANEOUS: INVERFERONS ALPHA-1 AND ALPHA-13 HAVE IDENTICAL PROTEIN SEQUENCES.  - I- SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA FAMILY.		uata sicili	Homo sapiens (Human).  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  NCBL TaxID=9606; [1] SEQUENCE FROM N.A. MEDLINE-81005094; PubMed=6157600; MEDLINE-8105094; PubMed=6157600; Mantei N., Schwarzstein M., Streuli M., Panem S., Nagata S., Weissmann C.; "The nucleotide sequence of a cloned human leukocyte interferon C.N.".	LT 1  HUMAN  1 NA1-HUMAN  P01562;  21-JUL-1986 ( 21-JUL-1986 ( 21-JUL-1986 ( 21-JUL-1986 ( 107-AUG-2001 ( 1NTERFERON AL  IFNA1 AND IFN

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RESULT
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Best Local S
Matches 8
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SMART; SW00076; IFabd; 1.
PROSITE; PS00252; INTERFER
Cytokine; Antiviral; Multis
SIGNAL 1
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EMBL; V00537; CAA23798.1; -.
EMBL; V00538; CAA23799.1; -.
EMBL; X00803; CAA23781.1; -.
PIR; A01826; IVHUA1.
PIR; C23285; C23285.
Linnane A.W., Beilharz M.W., McMullen G.L., Macreadie I.G., Murphy M., Nisbet I.T., Novitski C.E., Woodrow G.C.;
"Nucleotide sequence and expression in E. coli of a human interferonalpha gene selected from a genomic library using synthetic oligonuc entides.";
                                                                                                                                                                                                                                                                                                                                                                                            LT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HSSP; P01563;
MIM; 147578; -
MIM; 147660; -
                                                                                                                                                                                                                                       Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; I
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                            INA4_HUMAN STANDARD; PRT; 189 AA. P05014; P13358; 13-AUG-1987 (Rel. 05, Created) 13-AUG-1987 (Rel. 05, Last sequence update) 20-AUG-2001 (Rel. 40, Last annotation update) INTERFERON ALPHA-4 PRECURSOR (INTERFERON ALPHA
                                                                                    SEQUENCE FROM N.A.
                                                                                                                         "Structural relationship of human pseudogenes.";
                                                                                                                                                 Henco K., Brosius J., Fujisawa A., Fujisawa J.-I.,
Hochstadt J., Kovacic T., Pasek M., Schamboeck A.,
Todokoro K., Waelchli M., Nagata S., Weissmann C.;
                                                                                                                                                                              MEDLINE=86037205; PubMed=4057246;
Henco K., Brosius J., Fujisawa A.
                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                 NCBI_TaxID=9606
                                                                                                                                                                                                                                                                                                  ALPHA-M1) (INTERFERON ALPHA-76).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pfam; PF00143; interferon; 1. PRINTS; PR00266; INTERFERONAB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8; Conserv
                                                                                                             Biol. 185:227-260(1985)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PS00252; INTERFERON_A_B_D; 1. Antiviral; Multigene family;
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189
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162
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A -> V (IN REF. 3).
F32F9CB969606B69 (
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Pred. No.
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                                                                                                                                        interferon
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,.24;
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                                                                                                                                                                Haynes
Schmid
                                                                                                                                       genes and
                                                                                                                                                                                                                                                          Euteleostomi;
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RESULT 3
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Best Local :
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DISULFID
CONFLICT
CONFLICT
SEQUENCE
TISSUE=Spleen;
MEDLINE=81148795; PubMed=6163083;
Goeddel D.V., Leung D.W., Dull T.
                                                                                                                                                                         IFNA5.
HOmo sapiens (Human).
Homo sapiens (Human).
'harvota; Metazoa; Chordata; 'haria; Primates;
                                       SEQUENCE OF 57-189 FROM
                                                                                               SEQUENCE FROM N.A.

MEDLINE=86037205; PubMed=4057246;

Henco K., Brosius J., Fujisawa A., Fujisawa J.-I.,

Hochstadt J., Kovacic T., Pasek M., Schamboeck A.,

Todokoro K., Waelchli M., Nagata S., Weissmann C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                         pseudogenes.";
                                                                                                                                                                                                                                  ALPHA-61).
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13-AUG-1987 (Rel.
20-AUG-2001 (Rel.
                                                                                                                                                                                                                                                                                           P01569;
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ProDom; PD000550; Interferon_abd; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR000471; Interferon_abd
Pfam; PF00143; interferon; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; X02955; CAA26701.1; -. EMBL; M27318; AAA52726.1; -. PIR; E23753; IVHU4B.
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                                                                                    "Structural relationship
                                                                                                                                                                        NCBI_TaxID=9606;
                                                                                                                                                                                                                                             INTERFERON ALPHA-5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cytokine;
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                                                               Biol.
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PS00252; INTERFERON_A_B_D;
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52
74
137
189
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   Leung D.W., Dull T.J.,
                                                              185:227-260(1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA;
                                                                                                                                                                                                                                                                                                         STANDARD;
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05, Last sequence update)
40, Last annotation update)
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I 189
I 122
B 162
B 74
T 74
T 72
21808 MW;
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                                                                                     of human
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BY SIMILARITY.
BY SIMILARITY.
T -> A (IN REF. 2).
V -> E (IN REF. 2).
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                                                                                                                                                                                                                                                                                                                                                                                                                            Score 42;
Pred. No.
                                                                                                                                                                                   Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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                                                                                       interferon
  Gross M.,
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0.24;
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                                                                                    genes and
                                                                                                            Schmid
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                                                                                                            J.R.,
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RESULT 4
INA6_HUMAN
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EMBL; V00541; CAA23802.1;
PIR; A01833; IVHUA7.
HSSP; P01563; 2HIE.
MIM; 147565;
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                                                                                           SEQUENCE FROM N.A.

MEDLINE=86037205; PubMed=4057246;

Henco K., Brosius J., Fujisawa A., Fujisawa J.-I.,

Hochstadt J., Kovacic T., Pasek M., Schamboeck A.,

Todokoro K., Waelchli M., Nagata S., Weissmann C.;
                                                                                                                                                                                                                     Homo
                                                                                                                                                                                                                                                                      P05013;
13-AUG-1987 (Rel. 05, Created)
13-AUG-1987 (Rel. 05, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
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-i- FUNCTION: PRODUCED BY MACROPHAGES, IFN-ALPHA HAVE ANTIVIRAL ACTIVITIES. INTERFERON STIMULATES THE PRODUCTION OF TWO ENZYMES:

A PROTEIN KINASE AND AN OLIGOADENVLATE SYNTHETASE.

-i- SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
                                                       "Structural relationship of pseudogenes.";
J. Mol. Biol. 185:227-260(19)
                                                                                                                                                                                          Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cytokine; Antiviral;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SMART; SM00076; IFabd; 1.
PROSITE; PS00252; INTERFERON_A_B_D; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             McCandliss R.,
"The structure
                                                                                                                                                                            NCBI_TaxID=9606;
                                                                                                                                                                                                                                                ALPHA-54).
                                                                                                                                                                                                                                                             INTERFERON ALPHA-6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRINTS; PR00266; INTERFERONAB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                           1 LTEKKYSP
MOI. Biol. 185:227-260(1985).

FUNCTION: PRODUCED BY MACROPHAGES, IFN-ALPHA HAVE ANTIVIRAL FUNCTION: PRODUCED BY MACROPHAGES, THE PRODUCTION OF TWO ENZYMES: ACTIVITIES. INTERFERON STIMULARIES THE PRODUCTION OF TWO ENZYMES: A PROTEIN KINASE AND AN OLIGOADENYLATE SYNTHETASE.

SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          European Bioinformatics Institute.
                                                                                                                                                                                                                     sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
8; Conserv
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llarity 100.0%;
Conservative C
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            interferon;
                                                                                                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Interferon_abd;
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189
122
162
                                                                                                                                                                                          Chordata;
Primates;
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                                                                                 human
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BY SIMILARITY.
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Pred. No. 0.24;
                                                                                                                                                                                          Craniata; Vertebrata; Catarrhini; Hominidae;
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                                                                                   interferon
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01-OCT-1994 (Rel. 30, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
INTERFERON ALPHA-17 PRECURSOR (INTERFERON ALPHA-I') (INTERFERON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               modified and this statement is not removed. entitles requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
MEDLINE-81201124; PubMed-6165082;
Lawn R.M., Adelman J., Dull T.J., Gr
"DNA sequence of two closely linked
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; X02958; CAA26704.1; -.
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J. Interferon -!- FUNCTION:
                                       SEQUENCE OF 14-189 FROM N.A.
MEDLINE=85235859; PubMed=4008999;
Lund B., von Gabain A., Edlund T., Ny T
"Differential expression of interferon
Namalwa cells.";
                                                                                                                                                                                             SEQUENCE FROM N.A.

MEDLINE=85229953; PubMed=3891272;

Mizoguchi J., Pitha P.M., Raj N.B.K.;

"Efficient expression in Escherichia coli of trinterferon-alpha and their hybrid molecules.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ALPHA-T) (INTERFERON ALPHA-88).
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Pfam; PF00143; interferon; 1.
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                                                                                                                                                                          DNA 4:221-232(1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mammalia; Eutheria; Primates;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                Science 212:1159-1162(1981).
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Local Similarity 100.0%;
hes 8; Conservative (
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                    5:229-238(1985)
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BY SIMILARITY
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Catarrhini; Hominidae;
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Pred. No. 0.24;
Mismatches
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IFN-ALPHA HAVE ANTIVIRAL
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eukocyte interferon
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MBL outstation -
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between

ACTIVITIES. INTERFERON STIMULATES THE PRODUCTION OF TWO ENZYMES: A PROTEIN KINASE AND AN OLIGOADENYLATE SYNTHETASE. SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA FAMILY.

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EMBL; M11026; AAA52725.1; -.
EMBL; V00532; CAA23793.1; -.
EMBL; W10532; CAA23793.1; -.
EMBL; M71246; AAA52713.1; -.
PIR; A01835; IVHUA9.
PIR; A22255; A22255.
HSSP; P01563; IITF.
MIM; 147583; -.
      Gren E.Y., Berzin V.M., Tsimanis A.Y., Apsalon U.R., Yansone I.V., Dishler A.V., Pudova N.V., Smorodintse Iovlev V.I., Stepanov A.N., Feldmane G.Y., Meldrais Kavsan V.M., Efimov V.A., Sverdlov E.D.; "A new type of leukocytic interferon.";
                                                                                                                                                                                                                      MEDLINE-81148795; PubMed-6163083; Goeddel D.V., Leung D.W., Dull T.J., McCandliss R., Seeburg P.H., Ullrich
                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                    21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
INTERFERON ALPHA-21 PRECURSOR (INTERFERON ALPHA-F) (LEIF F)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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BY SIMILARITY.
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H -> P (IN REF. 1).
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Pred. No. 0.24;
; Mismatches (
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                                   .V., Smorodintsev A.A.,
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                               SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

MEDLINE=87053170; PubMed=3022999;
Himmler A., Hauptmann R., Adolf G.

"Molecular cloning and expression
                                                                                                                                                                                                                                                                                                                                                                                                                             13-AUG-1987 (Rel. 05, Created)
13-AUG-1987 (Rel. 05, Last sequence update)
01-MAR-1989 (Rel. 10, Last annotation update)
INTERFERON ALPHA-1 PRECURSOR.
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SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
                                                                                                                                                                                                                         I interferons."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9796;
                                                                                                                                                                                                                                                                                                                                                                                                                Equus caballus (Horse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P05003;
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Pfam; PF00143; interferon; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; M12350; AAA52718.1; -.. EMBL; V00540; CAA23801.1; -. EMBL; X00145; CAA24980.1; -. EMBL; A01832; IVHUF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 use by non-profit institutions as long modified and this statement is not removed.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SMART; SM00076;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         154 LTEKKYSP 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ب
                                                                                                  5:345-356(1986).

FUNCTION: PRODUCED BY MACROPHAGES, IFN-ALPHA HAVE FUNCTION: PRODUCTION OF ACTIVITIES. INTERFERON STIMULATES THE PRODUCTION OF A PROTEIN KINASE AND AN OLIGOADENYLATE SYNTHETASE. SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA
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Multigene family;
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LTEKKYSP 161

1 LTEKKYSP 8

Query Match
Best Local Similarity
Matches 8; Conser

RESULT NAK\_HUMAN

INAK\_HUMAN P01568;

STANDARD;

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Cytokine; Antiviral; SIGNAL 1

CHAIN

SMART; SM00076;

PROSITE; PS00252;

CONFLICT DISULFID

SEQUENCE

189

ΑA;

SEQUENCE FROM N.A. NCBI\_TaxID=9606; IFNA21.

SEQUENCE FROM N.A. Nature 290:20-26(1981). CDNAS."

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                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation—the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                         13-AUG-1987 (Rel. 05, Created)
13-AUG-1987 (Rel. 05, Last sequence update)
01-MAR-1989 (Rel. 10, Last annotation update)
INTERFERON ALPHA-2 PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P05004;
13-AUG-1987
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Cytokine; Antiviral; Multigene family;
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ProDom; PD000550; Interferon_abd; 1.
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Pfam; PF00143; interferon; 1.
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HSSP; P01563; 2HIE.
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                                                             EMBL; M14541; AAA30950.1;
EMBL; A15987; CAA01258.1;
PIR; B24912; IVHOA2.
HSSP; P01563; 2HIE.
                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Crania
Mammalia; Eutheria; Perissodactyla;
                                                                                                                                                                                                                                                                                                                                                                                                                                             Equus caballus (Horse).
            ProDom; PD000550;
                         PRINTS; PR00266; INTERFERONAB
                                      InterPro; IPR000471; Interferon_abd.
Pfam; PF00143; interferon; 1.
                                                                                                                                                                                                                                                                                                                                  "Molecular cloning and expression in
                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9796;
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                                                                                                                                                                                                                                                      interferons.";
An 5:345-356(1986).
In function: PRODUCED BY MACROPHAGES, IFN-ALPHA HAVE ANTIVIRAL
I- FUNCTION: INTERFERON STIMULATES THE PRODUCTION OF TWO ENZ
ACTIVITIES, INTERFERON STIMULATE SYNTHETASE.
A PROTEIN KINASE AND AN OLIGOADENYLATE SYNTHETASE.
I- SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
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nes 7; Conser
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 0; Interferon_abd; 1.
IFabd; 1.
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Query Match Best Local Matches

Similarity 7; Conserv

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Mismatches

85.7%; 87.5%;

Score 36; DB Pred. No. 3.6;

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SIGNAL
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13-AUG-1987 (Rel. 05, Last sequence update)
13-AUG-1989 (Rel. 10, Last annotation update)
INTERFERON ALPHA-3 PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
MEDLINE=87053170; PubMed=3022999;
Himmler A., Hauptmann R., Adolf G.R., Swetly P.;
"Molecular cloning and expression in Escherichia coli of equine type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HORSE
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            DISULFID DISULFID
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EMBL; A16555; CAA01292.1; -.
PIR; C24912; IVHOA3.
HSSP; P01563; 2HIE.
                                                                                                                                                                                                                  entities requires a license agreement (S or send an email to license@isb~sib.ch).
                                                                                                                                                                                                                                           use by non-profit institutions as long modified and this statement is not removed
                                                                                                                                                                                                                                                                    the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Equus caballus (Horse)
SEQUENCE
                                     CHAIN
                                                               Cytokine;
                                                                                                               Pfam; PF00143; interferon; 1. PRINTS; PR00266; INTERFERONAB.
                                                 SIGNAL
                                                                          PROSITE; PS00252;
                                                                                      SMART; SM00076; IFabd;
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5:345-356(1986).
5:345-356(1986).
5:345-356(1986).
FUNCTION: PRODUCED BY MACROPHAGES, IFN-ALPHA HAVE ANTIVIRAL ACTIVITIES. INTERFERON STIMULATES THE PRODUCTION OF TWO ENZ. A PROTEIN KINASE AND AN OLIGOADENYLATE SYNTHETASE.
A PROTEIN KINASE AND AN OLIGOADENYLATE SYNTHETASE.
CTMTLARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
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                                                              Antiviral; Multigene family; Signal.
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                                                                           INTERFERON_A_B_D;
                                                                                                   Interferon_abd; 1.
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                                       INTERFERON ALPHA-3
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INTERFERON ALPHA-4 PRECURSOR.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE; PS00252; INTERFERON_A_B_D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRINTS;
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PIR; D24912; IVHOA4.
HSSP; P01563; lITF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for contenting the content is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN
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                                                                                                                                                                                                                                                                                                                    154
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=87053170; PubMed=3022999; Himmler A., Hauptmann R., Adolf G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. MEDLINE=87053170;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            [NA4_HORSE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5:345-356(1986).

FUNCTION: PRODUCED BY MACROPHAGES, IFN-ALPHA HAVE ANTIVIRAL ACTIVITIES. INTERFERON STIMULATES THE PRODUCTION OF TWO ENZY A PROTEIN KINASE AND AN OLIGOADENYLATE SYNTHETASE.

SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
                                                                                                                                                                                                                                                                                                                 LQEKKYSP 161
                                                                                                                                                                                                                                                                                                                                         LTEKKYSP 8
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S; PR00266; INTERFERONAB.
m; PD000550; Interferon_a
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87.5%;
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CARBOHYDRATE-LINKAGE SITE THR-129. MEDLINB-91264809; PubMed=2049076; Adolf G.R., Kalsner I., Ahorn H., "Natural human interferon-alpha 2 Biochem. J. 276:511-518(1991).
MEDLINE=94052087; PubMed=8234245; Murgolo N.J., Windsor W.T., Hruza A.,
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SEQUENCE FROM N.A.

MEDLINE=81052322; PubMed=6159538;

Goeddel D.V., Yelverton E., Ullrich A., Heyneker H.L.,

Goeddel D.V., Yelverton E., Ullrich A., Heyneker H.L.,

Holmes W., Seeburg P.H., Dull T.J., May L., Stebbing N

McCandliss R., Sloma A., Tabor J.M., Gross M
                                                                                                                                                                                                                                                  Nature
                                                                                                                                                                                                                                                                                               Wetzel R.;
                                                                                                                                                                                                                                                                                                                   MEDLINE=81123083; PubMed=6162107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Formation of genes coding for hybrid proteins between related, cloned genes in E. coli."; nucleic Acids Res. 11:5661-5669(1983).
                                                      3D-STRUCTURE MODELING
                                                                                                                                                                                                                                          "Assignment of the disulphide bonds Nature 289:606-607(1981).
                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=81052321; PubM
Allen G., Fantes K.H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Streuli M., Nagata S., Weissmann C.; "At least three human type alpha interferons: structure of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Cloning of human leukocyte interferon cDNA production in E. coli.";
Rev. Latinoam. Microbiol. 27:141-150(1985).
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                                                                                                                                                                                                                                                                                                                                            DISULFIDE BONDS
                                                                                                                                                                                                                                                                                                                                                                                                                                   "A family of structural genes for human lymphoblastoid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE OF 24-112 AND 136-188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Weber H., Weissmann C.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Human leukocyte interferon produced by E. coli is biologically active.";
                                                                                                                                                                                                                                                                                                                                                                                           (leukocyte-type) interferon.";
Nature 287:408-411(1980).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=81015442;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Oliver G.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "DNA sequence of a major human leukocyte interfer
Proc. Natl. Acad. Sci. U.S.A. 78:5435-5439(1981).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE-82060261;
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Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PubMed=6159537;
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Valle F., Soberon
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                                                                                                                     Maurer Fogy I., Cantell is O-glycosylated.";
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Reichert P., Tsarbopoulos A.,
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"The three-dimensional high resolution structure of human interferon alpha-2a determined by heteronuclear NMR spectroscopy in solution.";
J. Mol. Biol. 274:661-675(1997).
-!- FUNCTION: PRODUCED BY MACROPHAGES, IFN-ALPHA HAVE ANTIVIRAL ACTIVITIES. INTERFERON STIMULATES THE PRODUCTION OF TWO ENZYMES:
A PROTEIN KINASE AND AN OLIGOADENVLATE SYNTHETASE.
-!- POLYMORPHISM: TWO FORMS, ALPHA-2A AND ALPHA-2B DIFFER BY A SINGLE RESIDUE (POSITION 46).
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PDB; 1ITF; 03-DEC-97.
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PDB; 2HIE; 31-AUG-94
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                                                                                                                                                                           Cytokine; Antiviral; Multigene Polymorphism; Pharmaceutical; 3
                                                                                                                                                                              SMART; SMUUU'0; 1: PROSITE; PS00252; INTERFERON_A_B_D; 1.
PROSITE; PS00252; INTERFERON_A_B_D; 1.
PROSITE; PS00252; INTERFERON_A_B_D; 1.
                                                                                                                                                                                                                                                      Pfam; PF00143; interferon;
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"Zinc mediated dimer of human interferon-alpha 2b revealed by X-ray
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"A homology model of human interferon alpha-2.";
Proteins 17:62-74(1993).
                                                                                                                                                    CHAIN
                                                                                                                                                                SIGNAL
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; V00544; CAA23805.1;
; V00548; CAA23809.1;
; V00549; CAA23810.1;
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M29883; AAA52715.1;
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 Similarity 7; Conser
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Score 36; DB Pred. No. 3.7, 0; Mismatches
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/FTId=CAR_000049.
K -> R (IN ALPHA-2B).
/FTId=VAR_004012.
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P01567;
21-JUL-1986
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Structural relationship of human pseudogenes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Henco K., Brosius J., Fujisawa A., Fujisawa J.-I.,
Hochstadt J., Kovacic T., Pasek M., Schamboeck A.,
Todokoro K., Waelchli M., Nagata S., Weissmann C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
20-JUG-2001 (Rel. 40, Last annotation update)
INTERFERON ALPHA-7 PRECURSOR (INTERFERON ALPHA-J1) (INTERFERON
                                                                                                                                                                                                                            HSSP; P01563;
MIM; 147567; -
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Ullrich A., Gray A., Goeddel D.V., Dull T.J.;
Ullrich A., Gray A., Goeddel D.V., Dull T.J.;
"Nucleotide sequence of a portion of human chromosome 9 containi
leukocyte interferon gene cluster.";
leukocyte interferon gene cluster.";
J. Mol. Biol. 156:467-486(1982).
-i- FUNCTION: PRODUCED BY MACROPHAGES, IFN-ALPHA HAVE ANTIVIRAL
-i- FUNCTION: PRODUCED BY MACROPHAGES, THE PRODUCTION OF TWO ENZ)
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MEDLINE=86037205; PubMed=4057246;
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189 AA;
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Goeddel D.V., Leung D.W., Dull T.J., Gross M., Lawn R.M.,
McCandliss R., Seeburg P.H., Ullrich A., Yelverton E., Gray P.W.;
"The structure of eight distinct cloned human leukocyte interferon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIJINE=BOUJ/200; FUMANA A., FUJISAWA J.-I.,
Henco K., Brosius J., FuJISAWA A., Schamboeck A.,
Hochstadt J., Kovacic T., Pasek M., Schamboeck A.,
Hochstadt J., Kovacic T., Pasek M., Schamboeck A.,
                                                                                                                                    PRINTS; PR00266; INTERFERONAB.
                                                                                                                                                                Pfam; PF00143; interferon;
                                                                                                                                                                                                                                                                                                                                                                                                                  or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the European Bioinformatics Institute. There are no rest
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=81201124; PubMed=6165082; Lawn R.M., Adelman J., Dull T.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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"Structural relationship of human interferon al 
pseudogenes.";
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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21-JUL-1986 (Rel. 01, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
INTERFERON ALPHA-14 PRECURSOR (INTERFERON ALPHA-H) (LEIF H)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P01570;
21-JUL-1986
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FUNCTION: PRODUCED BY MACROPHAGES, IFN-ALPHA HAVE ANTIVIRAL ACTIVITIES. INTERFERON STIMULATES THE PRODUCTION OF TWO ENZY A PROTEIN KINASE AND AN OLIGOADENVLATE SYNTHETASE.
MISCELLANEOUS: A VARIANT SEQUENCE DIFFERS IN 3 POSITIONS. THE BEING THE RESULT OF A DELETION FOLLOWED BY AN INSERTION.
SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SWISS-PROT entry is copyright. It is produced through een the Swiss Institute of Bioinformatics and the EN
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                                                                                                                                                                                                                                                 P01563; 2HIE.
                                                                                                       PD000550; Interferon_abd; 1.
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                      Multigene family; Glycoprotein; Signal
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interferon
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RESULT 14
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"Homogeneous production of feline interferon in single amino acid code in signal peptide region baculovirus and characterization of the product.
J. Vet. Med. Sci. 55:251-258(1993).
                                                                                                                                                                                                                                   This
                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF 1-193 FROM N.A. MEDLINE=93291263; PubMed=7685640;
                                                                                                                                                                                                                                                                                                                                                                                                                           MEDILINE-92323151; PubMed=1377975;
Nakamura N., Sudo T., Matsuda S., Yanai A.;
"Molecular cloning of feline interferon cDNA by
Biosci. Biotechnol. Biochem. 56:211-214(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INTERFERON ALPHA PRECURSOR (IFN-ALPHA).
Felis silvestris catus (Cat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
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             Cytokine;
                        SMART; SM00076; IFabd; 1.

PROSITE; PS00252; INTERFERON_A_B_D; 1.
                                                 PRINTS; PR00266; INTERFERONAB.
ProDom; PD000550; Interferon_abd;
                                                                        Pfam; PF00143; interferon;
                                                                                                    PIR; JS0664; JS0664.
HSSP; P01563; 2HIE.
                                                                                                                                                                    entities requires a
                                                                                                                                                                              use by non-profit institutions as long as modified and this statement is not removed. U
                                                                                                                                                                                                       the European Bioinformatics Institute.
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                                                                                          InterPro; IPR000471;
                                                                                                                              EMBL; S62636; AAB27160.2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. MEDLINE=92323151;
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                                                                                                                                                                                                                                                                      FUNCTION: PRODUCED BY MACROPHÁGES, IFN-ALPHA HAVE ANTIVIRAL ACTIVITIES. INTERFERON STIMULATES THE PRODUCTION OF TWO ENZYMES: A PROTEIN KINASE AND AN OLIGOADENYLATE SYNTHETASE. SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
                                                                                                                                                                                                    SWISS-PROT entry is copyright. It is produced through a collable the Swiss Institute of Bioinformatics and the EMBL outst European Bioinformatics Institute. There are no restrictions
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                                                                                                                                                      s requires a license agreement (See http://www.isb-sib.ch/announce/
an email to license@isb-sib.ch).
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             Antiviral;
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B6B71E2F0D644FE7
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21-JUL-1986 (Rel. 01, Created)
13-AUG-1987 (Rel. 05, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
INTERFEERON ALPHA-8 PRECURSOR (INTERFEERON ALPHA-B2) (INTERFEERON
                                                                                                                                                            Goeddel D.V., Leung D.W., Dull T.J., Gross M., Lawn McCandliss R., Seeburg P.H., Ullrich A., Yelverton F "The structure of eight distinct cloned human leukoc
                                                                                                                                                                                                                                       Yelverton E., Leung D., Weck P., Gray "Bacterial synthesis of a novel human Nucleic Acids Res. 9:731-741(1981).
                                                                                                                                                                                                                                                                                                     Gene 27:87-99(1984).
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Eukaryota; Metazoa; C
Mammalia; Eutheria; F
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       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                  SEQUENCE FROM N.A. MEDLINE=81148795; PubMed=6163083;
                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. MEDLINE=84183614; PubMed=6325303;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Henco K., Brosius J., Fujisawa A., Fujisawa J.-I.,
Hochstadt J., Kovacic T., Pasek M., Schamboeck A.,
Todokoro K., Waelchli M., Nagata S., Weissmann C.,
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"Cloning of eukaryotic
                                                                                                                                                                                                                                                                                                                                                                    Bowden D.W., Mao J.,
                                                                                                                                                                                                                                                                                                                                                                                                                        J. Mol.
                                                                                                                                                                                                                                                                                                                                                                                                                                pseudogenes.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                              "Structural relationship of human interferon
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                                                                                   SIMILARITY: BELONGS
                                                                                               IRE 290:20-26(1981).

FUNCTION: PRODUCED BY MACROPHAGES, IFN-ALPHA HAVE ANTIVIRAL FUNCTION: PRODUCED BY MACROPHAGES, THE PRODUCTION OF TWO ENZ ACTIVITIES. INPERFERON STIMULATES THE PRODUCTION OF TWO ENZ A PROTEIN KINASE AND AN OLIGOADENYLATE SYNTHETASE.
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S -> V (IN REF. 2).
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Pred.
                                                                                                                                                                                                                                                                                                                                            in single-strand phage vectors: the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                    Hsiao K., Lillquist J.S., Testa D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               D10E916E3755BFEF CRC64;
 not
                                                                                     INTERFERON
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                                                                                     ALPHA,
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                                                                                                                                                                                                                                                                Goeddel D.V.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                alpha
                                                                                                                                                            erton E., Gray P.W.;
leukocyte interfero
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 194
                                                                                                                                                                                                                                                      interferon.";
                                                                                     BETA AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
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Schmid
                                                                                                                                                                                                                                                                                                                                                                                                                                                genes and
                                                                                                                                                                                       R.M.,
 and
                                                                                                              TWO ENZYMES
                                                                                                                                                               interferon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        J.R.,
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d for
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RESULT
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Best Local Similarity
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CONFLICT
CONFLICT
SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; K01900; AAA52716.1;
EMBL; X03125; CAA26903.1;
EMBL; V00550; CAA23811.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; V00545; CAA23806.1; -. EMBL; K01900; AAA52716.1; -. EMBL; X03125; CAA26903.1; -.
                                                                                                                                                                                                                                                                                                                                         MEDLINE-87053170; PubMed=3022999; MEDLINE-87053170; PubMed=3022999; Medline-87053170; PubMed=3022999; Medline-R., Adolf G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P05001;
13-AUG-1987 (Rel. 05, Created)
13-AUG-1987 (Rel. 05, Last sequence update)
13-APR-1988 (Rel. 07, Last annotation update)
INTERFERON OMEGA-1 PRECURSOR (INTERFERON ALPHA-II-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PIR; D23753; IVHUI8. PIR; A01829; IVHUA4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro; IPR000471; Inter
Pfam; PF00143; interferon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HSSP; P01563; 2HIE. MIM; 147568; -.
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Interpro; IPR000471; Interferon_abd.
pfam; PF00143; interferon; 1.
prINTS; PR00266; INTERFERONAB.
                                              EMBL; M14544; AAA30955.1; -.
EMBL; A15991; CAA01259.1; -.
PIR; E24912; IVHO21.
HSSP, P01563; IITF.
                                                                                                                                                              the European Bioinformatics Institute. Thuse by non-profit institutions as long modified and this statement is not removed
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                                                                                                                                 or send an email to license@isb-sib.ch).
                                                                                                                                                  entities requires a
                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                                                                                                                                                                                  DNA
                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9796;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Equus caballus (Horse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cytokine; Antiviral;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00252; INTERFERON_A_B_D;
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Molecular cloning and
                                                                                                                                                                                                                                                                                                                                                                                                                                     Mammalia; Eutheria; Perissodactyla;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    154 LTEKKYS
                                                                                                                                                                                                                                                                                                                   interferons.";
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SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND
                                                                                                                                                                                                                                                                    FAMILY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         equires a license agreement (See http://www.isb-sib.ch/announce/
email to license@lsb-sib.ch).
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189
122
162
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                                                                                                                                                    license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       83.3%;
.100.0%;
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5.8;
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RESULT 17
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Best Local S
Matches 7
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P57016;
P57016;
20-AUG-2001 (Rel. 40, Created)
20-AUG-2001 (Rel. 40, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
20-AUG-2001 (Rel. 40, Last annotation update)
                                           REPEAT
REPEAT
                                                                                                                                                                                  the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                 Extracellular matrix;
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                                                                                                                                                                                                                                                                                                                                                                                                                                               membrane zone component. Genomics 39:323-330(1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Motoki K., Megahed M., LaForgia S., Uitto J.; "Cloning and chromosomal mapping of mouse ladinin, a novel basement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN=C57BL/6; TISSUE=Skin; MEDLINE=97224461; PubMed=9119369;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
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                                                                                                                                                                                                                                                                                                             FUNCTION: ANCHONING FILAMENT PROTEIN WHICH IS A COMPONENT OF THE BASEMENT MEMBRANE ZONE. MAY CONTRIBUTE TO THE STABILITY OF THE BASEMENT MEMBRANE ZONE. MAY CONTRIBUTE TO THE STABILITY OF THE BASEMENT MEMBRANE ZONE. ANY CONTRIBUTE TO CHESTON.

ASSOCIATION OF THE EPITHELIAL LAYERS WITH THE UNDERLYING MESENCHYME. COULD MAINTAIN DERMAL-EPIDERMAL COHESION.

SUBCELLULAR LOCATION: SECRETED; EXTRACELLULAR MATRIX. LOCALIZED TO ANCHORING FILAMENTS UNDERLYING HEMIDESMOSOMES OF THE LANINA LUCIDA OF THE EPIDERMAL BASEMENT MEMBRANE (BY SIMILARITY).

TISSUE SPECIFICITY: EXPRESSED IN KIDNEY, LUNG AND KERATINOCYTES FOLLOWED BY LIVER, SPLEEN AND BRAIN. NOT EXPRESSED IN TESTIS,
                                                                                                                                                                                                                                                                                                  FOLLOWED BY LIVER, SPLEEN AND BRAIN. NOT EXPR SKELETAL AND HEART MUSCLE AND IN FIBROBLASTS.
                                                                                                                                                           U58011; AAC53044.1; -.
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7; Conservative
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195
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 AA;
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Pred. No.
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                                                                                                                            membrane; Repeat
3893C72B0C92609C CRC64;
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Вр Qy

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8 161

Query Match Best Local S Matches 6

Similarity 6; Conser

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Score 33; DB Pred. No. 14; 1; Mismatches

DB 14;

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Query Match
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DISULFID
SEQUENCE
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                                                                                          CHAIN
                                                                                                                Cytokine;
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PRINTS; PR00266; INTERFERONAB.
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                                                                                                                                                                                                                                                                                       use by non-profit institutions as long modified and this statement is not removed
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Goeddel D.V., Leung D.W., Bull T.J., Gross M., Lawr
McCandliss R., Seeburg P.H., Ullrich A., Yelverton
"The structure of eight distinct cloned human leuko
                                                                                                                             PROSITE;
                                                                                                                                                                                                                                                                            entities requires a license agreement (See http://www.isb-sib.ch/announce,
                                                                                                                                                                                                                                                                                                               the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a between the Swiss Institute of Bioinformatics and the EMBI
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                                                                                                                                                                                                                                                                                                                                                                                                                                            cDNAs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
INTERFERON ALPHA-10 PRECURSOR (INTERFERON ALPHA-C) (LEIF
                                                                                                                                                                                         InterPro; IPR000471; Interferon_abd
                                                                                                                                                                                                                                                                                                                                                                                                                    -!- FUNCTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P01566;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INAA_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (INTERFERON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 LTEKKYSP 8
                                                                                                                                                                                                                                                                                                                                                                            FUNCTION: PRÓDUCEÓ BY MACROPHAGES, IFN-ALPHA HAVE ANTIVIRAL ACTIVITIES. INTERFERON STIMULATES THE PRODUCTION OF TWO ENZ A PROTEIN KINASE AND AN OLIGOADENYLATE SYNTHETASE.
SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
                                                                                                                                                                                                                                                                                                                                                                   FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LTEKRHSP 226
                                                                                                                           PS00252; INTERFERON_A_B_D;
                                                                                                                Antiviral; Multigene
                                                     189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ALPHA-6L).
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                                                   AA;
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122
                                                   162
21835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chordata;
Primates;
78.6%;
75.0%;
                                                                                                                                                                                                                                                                                                   institutions as long as
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75.0%;
                                                   WW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 34;
Pred. No.
                                                               INTERFERON ALPHA-10
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                   CEC680996FDA706B CRC64;
                                                                                                               family;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                Signal.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lawn
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                                                                                                                                                                                                                                                                                       bγ
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POS SEE DIT AC
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INA1_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOD_RES
SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Flammulina velutipes.
Eukaryota; Fungi; Basidiomycota; Hymenomycetes; Homobasidiomycetes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P80412;
01-FEB-1995 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FVE_FLAVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KO J.-L., Hsu C.-I., Lin R.-H., Kao C.-L., Lin J.-Y.; a new fungal immunomodulatory protein, FIP-fve isolated from the edible mushroom, Flammulina velutipes and its complete amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequence."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=38945;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Acetylation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=95220348; PubMed=7705335;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Shaw G.D., Boll W., Taira H., Mantel N., Lengyel P., Weissmann C.; "Structure and expression of cloned murine IFN-alpha genes."; Nucleic Acids Res. 11:555-573(1983).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       P01572;
                                                                                                                                                                                                                                                    "Characterization of a mouse interferon gene locus I. Isolation cluster of four alpha interferon genes.";
Nucleic Acids Res. 13:805-823(1985).
-i- FUNCTION: PRODUCED BY MACROPHAGES, IFN-ALPHA HAVE ANTIVIRAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus (Mouse)
                     This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EM the European Bioinformatics Institute. There are no restr
                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE-83168886;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=10090;
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                                                                                                                                                                                                                                                                                                                                                                          Kelly K.A., Pitha P.M.;
                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE-85215516; PubMed-2987811;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NA1_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11:1111
42 LTDKKYS 48
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les 6; Conserv
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SIMILARITY: TO IMMUNOGLOBULIN VARIABLE DOMAINS, BUT LACK THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CONSERVED DISULFIDE BOND.
                                                                                                                                                                   SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
                                                                                                                                                                                              ACTIVITIES, INTERFERON STIMULATES THE PRODUCTION OF TWO ENZYMES: A PROTEIN KINASE AND AN OLIGOADENYLATE SYNTHETASE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           114 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PubMed=6188104;
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12704 MW;
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85.7%;
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Last annotation updat
      institutions as long
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACETYLATION (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           D38C641DCC112A94 CRC64;
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         as its content
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                                    restrictions on
                                                                     EMBL outstation
            is
                                                                                             a collaboration
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Best Local
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InterPro; IPR000471; Interferon_abd
Pfam; PF00143; interferon; 1.
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HSSP; P01563; 2HIE.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      modified and this statement is not removed.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00252; INTERFERON_A_B_D; 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INA1_PIG STANDARD; PRT; 189 AA. P49879; P49879; O1-OCT-1996 (Rel. 34, Created) O1-OCT-1996 (Rel. 34, Last sequence update) 15-DEC-1998 (Rel. 37, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.lsb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                "Molecular cloning and sequencing of a gene encoding biologically active porcine alpha-interferon.";
J. Interferon Res. 6:349-360(1986).
- FUNCTION: PRODUCED BY MACROPHAGES, IFN-ALPHA HAVE ANTIVIRAL ACTIVITIES. INTERFERON STIMULATES THE PRODUCTION OF TWO ENZYMES:
A PROTEIN KINASE AND AN OLIGOADENVLATE SYNTHEFASE.
                                                                                                                                                                                                                                                                                                            Lefevre F., la Bonnardiere C., Mege D.;
"The porcine family of interferon-omega: cloning, structural
analysis, and functional studies of five related genes.";
                                                                                                                                                                                                                                                                                                                                                       STRAIN=DOMESTICA; TISSUE=Liver; MEDLINE=92193689; PubMed=1800582;
                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metázoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae;
                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sus scrofa (Pig).
                                                                                                                                                                                                                                                    MEDLINE=87035119; PubMed=2945869;
                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9823;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INTERFERON ALPHA-1 PRECURSOR (IFN-ALPHA-1).
                                                                                                                                                                                                                                     Lefevre F., la Bonnardiere C.;
                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          154 LREKKHSP 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21
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                                                                                                                                                                                                                                                                                                Interferon Res. 11:341-350(1991).
                                                                                                                                   SIMILARITY: BELONGS TO THE INTERFERON ALPHA,
                                                                                                                       FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SM00076;
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101
189
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122
162
101
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-LINKED (GLCNAC.
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BY SIMILARITY.
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35;
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                                                                                                                                           BETA AND DELTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and for commercial
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Best Local Similarity
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SMART: SM00076; iFabd; 1.
PROSITE; PS00252; INTERPERON_A_B_D; 1.
Cytokine; Antiviral; Multigene family; Glycoprotein; Signal.
                                               InterPro; IPR000471; Interferon_abd. Pfam; PF00143; Interferon; 1. PRINTS; PR00266; INTERFERONAB. PRODOM; PD000550; Interferon_abd; 1.
                                                                                                                                                                   use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                         Cluster of four alpha interferon genes.";
Nucleic Acids Res. 13:805-823(1985).
-I- FUNCTION: PRODUCED BY MACROPHAGES, IFN-ALPHA HAVE ANTIVIRAL
ACTIVITIES: INTERFERON STIMULATES THE PRODUCTION OF TWO ENZYMES:
A PROTEIN KINASE AND AN OLIGOADENYLATE SYNTHETASE.
                                                                                                            MGD; MGI:107663;
                                                                                                                                   PIR; C23087; IVMSA5.
                                                                                                                                                EMBL; X01971; CAA26003.1; ALT_SEQ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            _MOUSE
                                                                                                                                                                                                                                                                                                                                                                      Kelly K.A., Pitha P.M.; "Characterization of a mouse interferon gene locus I. Isolation
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Cranidia; verievania, Lucciona. Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus (Mouse).
Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-APR-1988 (Rel. 07, Created)
01-APR-1988 (Rel. 07, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=85215516; PubMed=2987811;
                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INTERFERON ALPHA-5 PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cytokine; Antiviral; Multigene
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProDom; PD000550; Inter SMART; SM00076; IFabd;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pfam; PF00143; interferon; 1. PRINTS; PR00266; INTERFERONAB.
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EMBL; M28623; AAA31053.1;
HSSP; P01563; lITF.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE;
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                                                                                                                                                                                                                                                                                            FAMILY
                                                                                                                                                                                                                                                                                             SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
                                                                                                                      P01563; 2HIE.
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Pred. No.
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INTERFERON ALPHA-1.
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family; Signal.
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                                                     SEQUENCE
                                                                                                               SIGNAL
                                                                                                                                                                                                                                                                                                                                                                        "Characterization of a mouse interferon gene locus I. Isolation of a cluster of four alpha interferon genes.";
Nucleic Acids Res. 13:805-823(1985),
-i- FUNCTION: PRODUCED BY MACROPHAGES, IFN-ALPHA HAVE ANTIVIRAL ACTIVITIES. INTERFERON STIMULATES THE PRODUCTION OF TWO ENZYMES:
- A PROTEIN KINASE AND AN OLIGOADENVLATE SYNTHETASE.
- SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
                                                                            DISULFID
                                                                                                                    Cytokine; Signal; Antiviral; Multigene family; Glycoprotein
                                                                                                                                                          PRINTS; PR00266; INTERFERONAB.
ProDom; PD000550; Interferon_abd; 1.
                                                                                                                                                                                    MGD; MGI:107662; Ifna6.
InterPro; IPR000471; Interferon_abd.
Pfam; PF00143; interferon; 1.
                                                                                        DISULFID
                                                                                                     CHAIN
                                                                                                                                     PROSITE; PS00252; INTERFERON_A_B_D; 1.
                                                                                                                                                  SMART; SM00076; IFabd;
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                                                                                                                                                                                                                                                                   entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                 EMBL; X01972; CAA26004.1; -
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01-APR-1988 (Rel. 07, Created)
01-APR-1988 (Rel. 07, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation update)
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DISULFID
DISULFID
CARBOHYD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN-BALB/C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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189 AA;
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75.0%;
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           Score 31;
Pred. No. 35;
                                                                       BY SIMILARITY.
BY SIMILARITY.
                                                N-LINKED (GLCNAC. . .) (PROBABLE)
A960BC2531330684 CRC64;
                                                                                                INTERFERON ALPHA-6
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Pred. No. 35;
1; Mismatches
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BY SIMILARITY.
N-LINKED (GLCNAC. . .) (PI
N-BB9CDFD15F5C3BD CRC64;
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INA8_MOUSE
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P17660;
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-AUG-1990 (Rel. 15,
01-NOV-1997 (Rel. 35,
INTERFERON ALPHA-8 PR
                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entities requires a license agreement (See http://www.isb-sib.ch/announce/
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-89279315; PubMed-2471809;
Navarro S., Dion M., Vodjdani G., J
"Isolation and characterization of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                 1 LTEKKYSP 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gen. Virol. 70:1381-1389(1989).

FUNCTION: PRODUCED BY MACROPHAGES, IFN-ALPHA HAVE ANTIVIRAL ACTIVITIES. INTERFERON STIMULATES THE PRODUCTION OF TWO ENZYMES: A PROTEIN KINASE AND AN OLIGOADENYLATE SYNTHETASE.

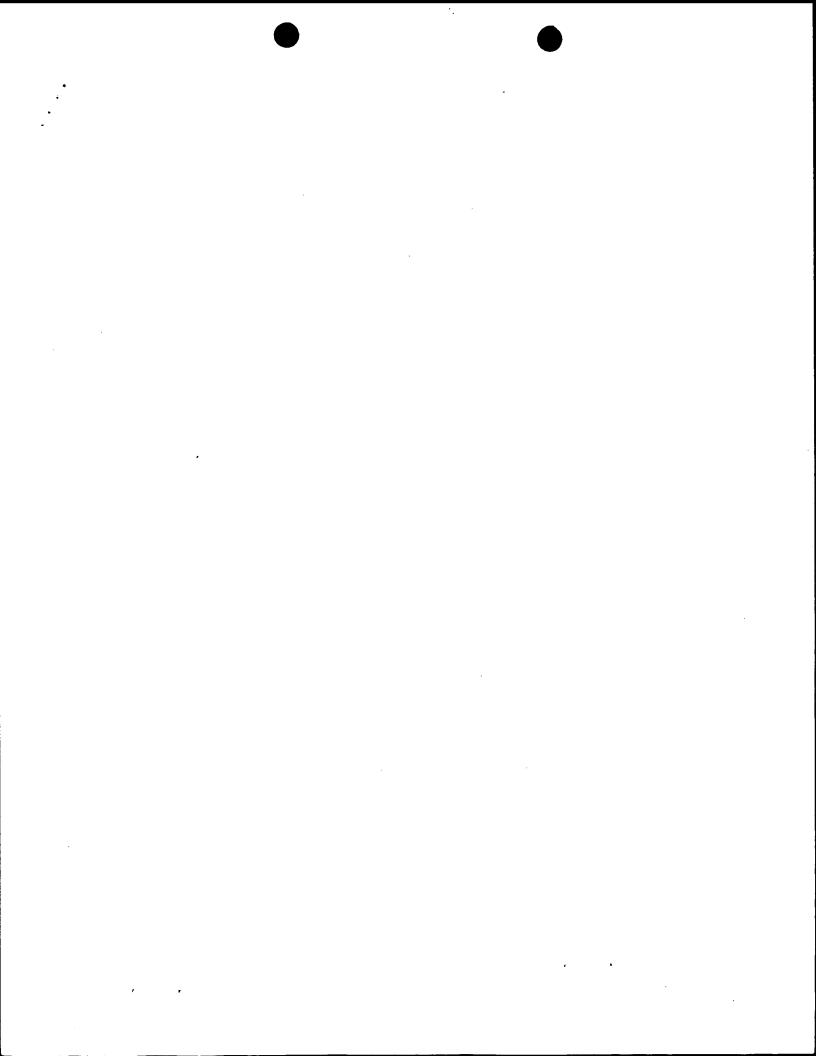
MISCELLANEOUS: MURINE INTERFERON ALPHA-8 IS NOT EXPRESSED IN FIBROBLASTS UPON VIRUS INDUCTION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - Buropean Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
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21469 MW;
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                                                                                                                       SEQUENCE
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MEDLINE-85215515; PubMed=2987810;
Zwarthoff E.C., Mooren A.T.A., Tr
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Eukaryota; Metazoa; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation update)
                                                                                                                                                                                          SIGNAL
                                                                                                                                                                                                         Cytokine;
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MGD; MGI:107666; II
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A PROTEIN KINASE AND AN OLIGOADENVILATE SYNTHETASE.
-!- SIMILARITY: BELONGS TO THE INTERFERON ALPHA, BETA AND DELTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Organization, structure and expression genes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Shaw G.D., Boll W., Taira H., Mantei N., Lengyel P., "Structure and expression of cloned murine IFN-alpha Nucleic Acids Res. 11:555-573(1983).
                                                                                                                                                                                                                   PROSITE; PS00252; INTERFERON_A_B_D; 1
                                                                                                                                                                                                                                                                            Pfam; PF00143; interferon;
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154 LREKKHSP
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Pred.
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Search completed: January 15, 2002,

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interferon alpha-I
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interferon alpha-I
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73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	76.2	76.2	76.2	76.2	78.6	78.6	78.6	83.3	83.3
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carbonic anhydrase	alpha-interieron -	interferon alpha-B	interferon alpha-/	interferon alpha-1	interferon alpha-1	interferon alpha-2	murine interferon	interteron alpha-l	interferon alpha-1	interferon alpha-		ATPase homolog - C	hypothetical prote	protein TINI5.3 [1	1mmunomodulatory	hypothetical prote	interferon alpha-5	hypothetical prote	interteron alpha-1	interferon alpha-I

ALIGNMENTS

#### R;Lund, B.; Edlund, T.; Lindenmaier, W.; Ny, T.; Collins, J.; Lundgren, E.; von Gabai Proc. Natl. Acad. Sci. U.S.A. 81, 2435-2439, 1984 A;Title: Novel cluster of alpha-interferon gene sequences in a placental cosmid DNA 1 A;Reference number: 158999; MUID:84194022 A;Accession: 179343 C;Species: Homo sapiens (man) C;Date: 31-May-1996 #sequence\_revision 31-May-1996 #text\_change 16-Jul-1999 C;Accession: I79343 A;Molecule type: DNA A;Residues: 1-72 <RES> A;Cross-references: GB:K01461; NID:g184575; PIDN:AAA58685.1; PID:g184579 R:Ohara, O.; Teraoka, H. FEBS Lett. 211, 78-82, 1987 A;Title: Anomalous behavior of human leukocyte interferon subtypes A;Reference number: A91374; MUID:87105954 A;Accession: E25843 N;Alternate names: human leukocyte interferon (IFN) C;Species: Homo sapiens (man) C;Date: 16-Aug-1988 #sequence\_revision 16-Aug-1988 #text\_change 15-Jun-1996 C;Accession: E25843 RESULT E25843 밁 γ C; Superfamily: interferon alpha A; Status: preliminary; translated from GB/EMBL/DDBJ A; Molecule type: mRNA A; Residues: 1-167 <OHA> C; Superfamily: interferon alpha interferon alpha T - human (fragment) A;Status: nucleic acid sequence not shown; not compared with conceptual translation interferon alpha-F - human Matches Query Match Query Match Best Local Similarity Local Similarity hes 8; Conserv 65 LTEKKYSP 1 LTEKKYSP 8 Conservative 100.0%; 100.0%; Score 42; DB 2 100.0%; Pred. No. 0.11; 0; Score 42; DB 2; Pred. No. 0.25; Mismatches DB 2; Length 72; 0; Length 167; Indels 0; on polyacrylamide Gaps 0;

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RiGren, E.; Berzin, V.M.; Jansone, ...
J. Interferon Res. 4, 609-617, 1984
J. Interferon Res. 4, 609-617, 1984
Agritle: Novel human leukocyte interferon subtype and structural comparison of alpha int
                                                                                                              interferon alpha 21 - human
C;SpecLes: Homo sapiens (man)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 16-Jul-1999
C;Accession: I56313
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N;Molecule type: mRNA
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A;Title: Differential expression of interferon genes in a A;Reference number: I56314; MUID:85235859
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C; Species: Homo sapiens (man)
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A;Residues: 1-167 <OHA>
C;Superfamily: interferon alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Title: Anomalous behavior of human leukocyte interferon subtypes on polyacrylamide A;Reference number: A91374; MUID:87105954
Accession: D25843
Status: nucleic acid sequence not shown; not compared with conceptual translation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Species: Homo sapiens (man)
C;Date: 16-Aug-1988 #sequence_revision 16-Aug-1988 #text_change 15-Jun-1996
C;Accession: D25843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEBS Lett. 211, 78-82, 1987
A; Title: Anomalous behavior
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R;Ohara, O.; Teraoka, H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        interferon alpha-G - human
N;Alternate names: human leukocyte interferon (IFN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1;Cross-references: GB:M71246; NID:g184572; PIDN:AAA52713.1;
                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Genetics:
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Best Local
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8; Conserv
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Pred. No.
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Pred. No. 0.25;
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A;Cross-references: EMBL:X02956; NID:g32659; PIDN:CAA26702.1; PID:g758079
R;Goeddel, D.V.; Leung, D.W.; Dull, T.J.; Gross, M.; Lawn, R.M.; McCandliss,
                                                              A; Molecule type: DNA
A; Residues: 1-189 <HEN>
                                                                                                       A; Title: Structural relationship of human A; Reference number: A92916; MUID: 86037205 A; Accession: S43716
                                                                                                                                                                  C;Accession: S43716; A01833
R;Henco, K.; Brosius, J.; Fujisawa, A.; Fujisawa,
J. Mol. Biol. 185, 227-260, 1985
                                                                                                                                                                                                                        interferon alpha-5 precursor - human
N;Alternate names: interferon alpha-G
C;Species: Homo sapiens (man)
C;Date: 01-Sep-1981 #sequence_revision 29-Jan-1999 #text_change 21-Jul-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C;Keywords: antiviral F;1-23/Domain: signal sequence #status predicted <SIG>F;24-189/Product: interferon alpha-I-6 #status predicted
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A; Map position: 9p22-9p22
C: Superfamily: interferon alpha
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A; Residues: 1-189 <HEN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Title: Structural relationship of human interferon alpha genes and pseudogenes A;Reference number: A92916; MUID:86037205 A;Accession: A23753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Species: Homo sapiens (man)
C;Date: 28-Dec-1987 #sequence_revision
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                interferon alpha-I-6 precursor - human
N;Alternate names: HuIFN-alpha-I-6; LeIF K; type I interferon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Map position: 9p22-9p22
C; Superfamily: interferon alpha
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J. Mol. Biol. 185, 227-260, 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R; Henco,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C; Accession: A23753
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A;Status: preliminary; translated from GB/EWBL/DDBJA;Molecule type; mRNA
A;Residues: 1-181 <RES>
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Best Local
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20-26, 1981
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8; Conser
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8; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OMIM: 147566
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Pred. No.
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Pred. No. 0.27;
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                                                                                                                                            interferon alpha
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                                                                                                                                                                                 J.I.; Haynes, J.R.; Hochetadt, J.;
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290,

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A;Cross-references: GDB:136362; OMIM:147565
A;Map position: 9p22-9p22
C;Superfamily: interferon alpha
C;Keywords: antivitral; cytokine; leukocyte
F;1-23/Domain: signal sequence #status predicted <NAT>
F;24-189/Product: interferon alpha-5 #status predicted <MAT>
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A; Residues: 1-189 < CAP>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C:Date: 22-May-1981 #sequence_revision 01-Sep-1981 #text_change 24-Sep-1999
C:Accession: C23285; A91467; A93226; A93249; I58213; S43715; S41196; A01826
R:Capon, D.J.; Shepard, H.M.; Goeddel, D.V.
Mol. Cell. Biol. 5, 768-779, 1985
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Best Local Similarity
Thehes 8; Conserv
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A; Residues: 57-189 <GOE>
A; Cross-references: GB: V00541;
                                                                                                Nucleic Acids Res. 11, 5661-5669, 1983
A; Title: Formation of genes coding for hybrid
A; Reference number: I58213; MUID:83299241
A; Accession: I58213
                                                                                                                                                                                                                                                                                                                                A; Molecule type: mRNA
A; Residues: 1-189 <TAND
R; Goeddel, D.V.; Leung, D.W.; Dull, T.J.; Gross,
Nature 290, 20-26, 1981
A; Title: The structure of eight distinct cloned l
A; Reference number: A93249; MUID:81148795
A; Accession: A93249
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A; Residues: 1-136,'V',138-189 <GOE>
A; Cross-references: GB: V00538; NID: 932713; PIDN: CAA23799.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Molecule type: mRNA
A; Residues: 1-189 < MAN>
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                          A; Molecule type: DN
A; Residues: 24-189
                                                                                                                                                                                                                             A; Note: eight classes of interferon alpha
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P.Taniguchi, T.; Mantei, N.; Schwarzstein, M.; Nagata, S.; Muramatsu, J
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A;Accession: A91467
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A;Cross-references: GB:M29884; NID:g184583; PIDN:AAA52714.1;
                                                                          A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                  R; Weber, H.; Weissmann,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Taniguchi, T.; Mantei N.; Schwarzstein, ure 285, 547-549, 1980 itle: Human leukocyte and fibroblast ir Reference number: A93226; MUID:80254543; Accession: A93226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ane 10, 1-10, 1980
sne 10, 1-10, 1980
;Title: The nucleotide sequence of a cloned human leukocyte
;Title: The number: A91467; MUID:81005094
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                     human leukocyte interferon cDNAs
                                                                                                                                                                                                                                                                                                                                                                                                                                        M.; Lawn, R.M.; McCandliss,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
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                                                                                                                                                                                                                                  799.1; PID:g32714 identified; this
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PID:g386794
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C;Date: 01-Sep-1981 #sequence_revision 01-Sep-1981 #text_change
C;Accession: A01832
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C; Superfamily: interferon alpha
C; Keywords: antiviral; cytokine; leukocyte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Title: Structural relationship of human A; Reference number: A92916; MUID:86037205
                                                                                                                                                                                        F;1-23/Domain: signal sequence #status predicted <SIG>F;24-189/Product: interferon alpha-I-F #status predicted F;24-122,52-162/Disulfide bonds: #status predicted
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C; Superfamily: interferon alpha
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A; Residues: 1-189 <GOE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R;Goeddel, D.V.; Leung, D.W.; Dull, T.J.; Gross, M.; Lawn, R.M.; Nature 290, 20-26, 1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            interferon alpha-I-F precursor - human
N;Alternate names: HuIFN-alpha-I-F; LeIF F; type I interferon
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A; Residues: 1-9,'A',11-189 < ROS>
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A; Residues: 1-189 <HEN>
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                                                                                                                                                                                                                                                         C; Keywords: antiviral
                                                                                                                                                                                                                                                                                                                                                                   C; Genetics
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A;Note: eight classes of interferon alpha clones were identified; this sequence i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Reference number: A93249;
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Best Local :
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154
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                                                                                   Local Similarity hes 8; Conserv
                                      1 LTEKKYSP 8
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8; Conserv
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Pred. No. 0.
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Pred. No. 0.28;
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C:Keywords: leukocyte
F:1-29/Domain: signal sequence #status predicted <SIG>
F:24-189/Product: interferon alpha-17 #status predicted <MAT>
F:24-122,52-162/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                               A;Molecule type: mRNA
A;Residues: 1-56, H;Se-189 <MIZ>
A;Residues: 1-56, H;Se-189 <MIZ>
A;Residues: 1-56, H;Se-189 <MIZ>
A;Residues: 1-56, H;Se-189 <MID:g184612; PIDN:AAA52725.1; PID:g306908
A;Cross-references: GB:M11026; NID:g184612; PIDN:AAA52725.1; PID:g306908
A;Coon, K.C.; Miller, D.; Bekisz, J.; zur Nedden, D.; Enterline, J.C.; Nguyen, N.Y.; Hu, J. Biol. Chem. 267, 15210-15216, 1992
A;Title: Purification and characterization of multiple components of human lymphoblastoi A;Reference number: A42753; MUID:92340576
A;Accession: C42753
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                                                                                                                          A;Cross-references: GDB:136358; OMIM:147583
A;Map position: 9p22-9p22
C;Superfamily: interferon alpha
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A; Residues: 'X', 25-50, 'XX', 53-56
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DNA 4, 221-232, 1985
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N;Alternate names: HuIFN-alpha-I-4b; type I interferon
C;Species: Homo sapiens (man)
C;Date: 28-Dec-1987 #sequence_revision 28-Dec-1987 #text_change 18-Jun-1999
C;Accession: E23753
R;Henco, K; Broslus, J; Pujisawa, A.; Fujisawa, J.I.; Haynes, J.R.; Hochstadt, J.; Kov J.Mol. Biol. 185, 227-260, 1985
                                                                                                                                                                                                                           A; Gene: GDB: IFNA17
                                                                                                                                                                                                                                                               C; Genetics
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A; Accession: A22255
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A; Residues: 1-189 <LAW>
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;1-23/Domain: signal sequence #status predicted <SIG>
;24-189/Product: interferon alpha-I-4b #status predicted
F;24-122,52-162/Disulfide bonds: #status predicted
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A;Accession: E23753
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A;Map position: 9p22-9p22
C;Superfamily: interferon alpha
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A; Residues: 1-189 <HEN>
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QΥ
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R:Gren, E.Y.; Berzin, V.M.; Tsimanis, A.Y.; Ap.
A.; Lozha, V.P.; Kavsan, V.M.; Efimov, V.A.;
Dokl. Biochem. 269, 91-95, 1983
A:Title: A new type of leukocytic interferon.
                                                                                                              C; Superfamily: interferon
                                                                                                                                     A; Gene:
                                                                                                                                                                  A; Cross-references: EMBL: X00145; NID: g32724; PIDN: CAA24980.1; PID: g32725
                                                                                                                                                                                    A; Molecule type: mRNA
A; Residues: 1-189 < RE2>
                                                                                                                                                                                                                A; Status: preliminary; translated
                                                                                                                                                                                                                                   A;Cross-references: GB:M12350; NID:g184598; PIDN:AAA52718.1; PID:g306906 A;Accession: I37583
                                                                                                                                                                                                                                                                  A; Molecule type: mRNA
A; Residues: 1-189 < RES>
                                                                                                                                                                                                                                                                                                                  A; Reference number: A; Accession: 184464
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Status: preliminary; translated from GB/EMBL/DDBJA;Molecule type: mRNAA;Residues: 1-189 <RES>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Biochem. Int. 8, 725-732, 1984
A; Title: Nucleotide sequence and expression in E. A; Reference number: 152347; MUID:84307815
                                                                                                                                                                                                                                                                                                 A; Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                C;Species: Homo sapiens (man)
C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 16-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Вþ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: GB:M27318; NID:g184617; PIDN:AAA52726.1; PID:g306909 C;Genetics:
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Best Local Similarity
""" 8; Conserv?
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 16-Jul-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    interferon-alpha-F - human
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                                                  Query Match
Best Local
                                    Matches
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Best Local
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   1 LTEKKYSP 8
                                                                                                                                     IFNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A.W.; Beilharz, M.W.; McMullen, G.L.; Macreadie, I.G.; Murphy, M.; Nisbet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (man)
                                  Similarity
8; Conser
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8; Conser
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                                  Conservative
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                                Score 42; DB
Pred. No. 0.2
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Pred. No.
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Pred. No. 0.28;
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                                                                Length 189;
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В

154 LTEKKYSP

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alpha 2 interferon - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 16-Jul-1999
C;Accession: 178570
R;Weber, H.; Weissmann, C.
Nucleic Acids Res. 11, 5661-5669, 1983
Nucleic Acids Res. 11, 5661-5669, 1983
A;Title: Formation of genes coding for hybrid proteins by recombination betwoeld between the second proteins of genes coding for hybrid proteins by recombination between the second proteins as a preliminary; translated from GB/EMBL/DDBJ
A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 16-Jul-1999 C;Accession: I53102 R;Cohen, S.; Velan, B.; Grosfeld, H.; Shalita, Z.; Leitner, M.; Shafferman, A. Dev. Biol. Stand. 60, 111-122, 1985 A;Title: Cloning, expression and biological activity of a new variant of human A;Reference number: I53102; MUID:86005847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R:Saveliev, V.I.; Zlochevsky, M.I.; Sorokin, A.V.; Naroditskaya, V.A.; Bolotin, A.P.; De Antibiot. Med. Biotekhnol. 31, 592-596, 1986
A;Title: [Cloning and the determination of the nucleotide sequences in 2 genes of human A;Reference number: 151970; MUID:87024453
A;Accession: I51970
A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            interferon precursor - human
C;Speckes: Homo sapiens (man)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 16-Jul-1999
C;Accession: I51970
R;Saveliev, V.I.; Zlochevsky, M.L.; Sorokin, A.V.; Naroditskaya, V.A.; Bolo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: GB:M34913; NID:g184614; PIDN:AAA36039.1; PID:g184615 C;Superfamily: interferon alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Status: preliminary; translated from GB/EMBL/DDBJA;Molecule type: mRNAA;Residues: 1-189 <RES>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Gene: IFNA
C; Superfamily: interferon alpha
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  A;Cross-references: GB:M29883; NID:g184585; PIDN:AAA52715.1; PID:g386795 C;Genetics:
                                                 A; Molecule type: DNA
A; Residues: 1-165 < RES>
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C;Genetics:
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A; Residues: 1-189 < RES>
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est Local Similarity
atches 8; Conserv
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Pred. No. 0.28;
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Pred. No.
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interferon alpha-I-4 precursor - horse
N;Alternate names: EqIFN-alpha-I-4; type I interferon
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                                                      IVHOA4
                                                                              RESULT
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R:Lefevre, F.; Boulay, V.
J. Biol. Chem. 268, 19760-19768, 1993
A;Title: A novel and atypical type one interferon A;Reference number: A48772; MUID:93374975
A;Accession: A48772
                                                                                                                                                                                                                                                                                                                                                                                                                             interferon, atypical type I precursor - pig
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 19-May-1995 #sequence_revision 19-May-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Title: Anomalous behavior of human leukocyte interferon subtypes on polyacrylamide A;Reference number: A91374; MUID:87105954 A;Accession: F25843
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N;Alternate names: human leukocyte interferon (IFN)
N;Alternate names: human leukocyte interferon (IFN)
C;Species: Homo sapiens (man)
C;Date: 16-Aug-1988 #sequence_revision 16-Aug-1988 #text_change 15-Jun-1996
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Best Local Similarity
Ynthes 7; Conserv?
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C; Superfamily: interferon alpha
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A; Molecule type: DNA; mRNA
A; Residues: 1-170 < LEF>
                                                                                                                                                                           C; Superfamily: interferon alpha
                                                                                                                                                                                                                 C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                             C; Accession: A48772
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A; Residues: 1-167 < OHA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Status: nucleic acid sequence not shown; not compared with conceptual translation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R;Ohara, O.; Teraoka, H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C; Accession: F25843
                                                                                                                                                                                             A; Introns: #status absent
                                                                                                                                                                                                                                    A;Cross-references: GB:Z22706; NID:g414202; PIDN:CAA80407.1; PID:g414203
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Matches 7; Conserv
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                                                                                                                Query Match
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146 LKEKKYSP 153
                                                                         Local Similarity hes 7; Conserv
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                                    1 LTEKKYSP 8
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87.5%;
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Pred. No. 4.3;
                                                                                             Score 36; DB Pred. No. 4.4;
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                                                                             Mismatches
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                                                                                                                Length 170;
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interferon alpha-I-3 precursor - horse
W.Alternate names: EqIFN-alpha-I-3; type I interferon
C:Species: Equus caballus (domestic horse)
C:Date: 28-Dec-1987 #sequence_revision 28-Dec-1987 #text_change
C:Accession: C24912
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                                                                         A; Reference number: A90956; A; Accession: C24912
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N:Alternate names: EqIFN-alpha-I-2; type I interferon
C:Species: Equus caballus (domestic horse)
C:Date: 28-Dec-1987 #sequence_revision 28-Dec-1987 #text_change 18-Jun-1999
C:Accession: B24912
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C;Date: 28-Dec-1987 #sequence_revision 28-Dec-1987 #text_change 18-Jun-1999
C;Accession: D24912
R;Himmler, A.; Hauptmann, R.; Adolf, G.R.; Swetly, P.
DNA 5, 345-356, 1986
A; Residues: 1-184 <HIM>
A; Cross references: GB:M14542; NID:g164222;
                                                 A; Molecule type: DNA
                                                                                                                      A; Title: Molecular cloning and
                                                                                                                                            R; Himmler, A.; Hauptmann, R.; Adolf, G.R.; DNA 5, 345-356, 1986
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A;Reference number: A90956;
A;Accession: B24912
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C; Keywords: antiviral
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A; Residues: 1-184 <HIM>
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A; Residues: 1-184 <HIM>
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Best Local S
Matches 7
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Best Local S
Matches 7
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87.5%;
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                                                                                                                      expression
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Pred. No.
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       PIDN: AAA30951.1; PID:g164223
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4.8;
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                                                                                                                    equine type I
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                                                                                                                      interfero
                                                                                                             A.Cross-references: GB.V00544; NID:g32730; PIDN:CAA23805.1; PID:g32731 {
R.Experimental source: clone pL31
R.Goeddel, D.V.; Leung, D.W.; Dull, T.J.; Gross, M.; Lawn, R.M.; McCandliss, R.;
Nature 290, 20-26, 1981
A;Title: The structure of eight distinct cloned human leukocyte interferon cDNAs.
A;Reference number: A93249; MUID:81148795
                                                                                                                                                                                                                                                                                                                                                                                                            interferon alpha-2 precursor (allele a) [validated] - human NyAlternate names: IFN-alpha2; interferon alpha-3; interferon alpha-A; leukocyte inte (Species: Homo sapiens (man) C;Date: 31-Oct-1980 #sequence_revision 01-Sep-1981 #text_change 08-Dec-2000 C;Accession: A93234; D93249; A93888; I59458; A94252; A25843; A01828; C61478; S15848; R;Goeddel, D.V.; Yelverton, E.; Ullrich, A.; Heyneker, H.L.; Miozzari, G.; Holmes, W.
  A;Cross-references: GB:V00549; NID:g32744; PIDN:CAA23810.1; PID:g32745 A;Note: eight classes of interferon alpha clones were identified; this
                                               A; Molecule type: mRNA
A; Residues: 1-188 <GO2>
                                                                                               A; Accession: D93249
                                                                                                                                                                                                                                                       A; Accession: A93234
A; Molecule type: DNA
A; Residues: 1-188 <GOE>
                                                                                                                                                                                                                                                                                                                         A;Title: Human leukocyte interferon produced by Escherichia coli is biologically A;Reference number: A93234; MUID:81052322
                                                                                                                                                                                                                                                                                                                                                                      ss, M.; Familletti, P.C.; Pestka, Nature 287, 411-416, 1980
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C; Keywords: antiviral
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C;Species: Equus caballus (domestic horse)
C;Date: 28-Dec-1987 #sequence_revision 28-Dec-1987 #text_change 18-Jun-1999
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A; Residues: 1-184 <HIM>
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4.8;
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A;Title: Assignment of the disulphide bonds of leukocyte interferon. A;Reference number: A93244; MUID:81123083
A;Contents: annotation; disulfide bonds
                                                                                                                                                                                                                   A; Molecule type: protein
A; Residues: 'x',25-45,'R',47-51,'X',53-55,'XX',58-65 <200>
                                                                                                                                                                                                                                                                                                                                  R;Zoon, K.C.; Miller, D.; Bekisz, J.; zur Nedden, D.; Enterline, J.C.; Nguyen, N.Y.; Hu, J. Biol. Chem. 267, 15210-15216, 1992
A;Title: Purification and characterization of multiple components of human lymphoblastoi A;Reference number: A42753; MUID:92340576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Adolf, G.R.; Kalsner, I.; Ahorn, H.; Maurer-Fogy, I.; Cantell, Biochem. J. 276, 511-518, 1991
A;Title: Natural human interferon-alpha-2 is O-glycosylated.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A:Residues: 24-42,'Z',44-45,'R',47-74,'A',76,'S',78-98,'X',100-105,'D',107-109,'P',111-8,'NOte: residues at positions 83, 86, and 139 may be Ile or possibly Leu; those at positions A;Note: 57-Arg, 75-Thr, 77-Pro, and 96-Glx were also found R:Fukuda, S.; Ando, S.; Sanou, O.; Taniai, M.; Fujii, M.; Masaki, N.; Nakamura, K.I.; Atymphokine Res. 7, 175-185, 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: protein A; Residues: 24-45, 'R', 47-53 <BIO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Title: Simultaneous production of natural human tumor necrosis factor-alpha, -beta and A;Reference number: A61478; MUID:88301617
A:Accession: C61478
                                                                                                                          Nature 289, 606-607, 1981
                                                                                                                                                                     R; Wetzel
                                                                                                                                                                                                   A; Experimental source: Sendai virus-induced
                                                                                                                                                                                                                                                                                                               A; Accession: B42753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Experimental source: leukocytes
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A;Accession: S15848
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R;Allen, G.; Fantes, K.H.
Nature 287, 408-411, 1980
A;Title: A family of structural genes for human lymphoblastoid (leukocyte-type) interfer A;Reference number: A01828; MUID:81052321
A;Accession: A01828
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FEBS Lett. 211, 78-82, 1987
A;Title: Anomalous behavior of human leukocyte interferon subtypes on polyacrylamide A;Reference number: A91374; MUID:87105954
A;Accession: A25843
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A;Residues: 7-45,'R',47-188 <STR>
A;Residues: 7-45,'R',47-188 <STR>
A;Cross-references: GB:V00548; NID:g32740; PIDN:CAA23809.1; PID:g32741
R;Ohara, O.; Teraoka, H.
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A:Title: At least three human type alpha interferons: structure of alpha2 efference number: A94252; MUID:81015442
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A;Experimental source: clone lambda-alpha-2
R;Oliver, G.; Balbas, P.; Valle, F.; Soberon, X.; Bolivar, F.
Rev. Latinoam. Microbiol. 27, 141-150, 1985
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A; Title: DNA sequence of a major human leukocyte interferon gene.
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A; Residues: 'M', 24-188 <OHA>
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A; Residues: 1-45,'R',47-188 <LAW>
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esidues: 24-45,'R',47-53 <FUK>
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A; Molecule type:
                                      A; Reference number: A93249; MUID: 81148795
A; Accession: B93249
                                                                                                                                              R; Goeddel, D.V.; L
Nature 290, 20-26,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                A; Title: The structure of eight distinct cloned human leukocyte interferon cDNAs
                                                                                                                                                                                                               A; Cross-references: GB: V00533; GB: J00215;
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Science 212, 1159-1162, 1981
A;Title: DNA sequence of two closely linked human leukocyte interferon genes.
A;Reference number: A94255; MUID:81201124
A;Accession: A94255
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A; Molecule type: DNA
A; Residues: 1-189 < LAW>
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R;Henco, K.; Brosius, J.; Fujisawa, A.; Fujisawa, J.I.; Haynes, J.R.; Hochstadt, J. Mol. Biol. 185, 227-260, 1985
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A; Residues: 1-189 < HEN>
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F;24-188/Product: interferon alpha-2 *status experimental <MAT>
F;24-121,52-161/Disulfide bonds: *status experimental
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A; Residues: 'M', 24-188 < RE2>
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A; Residues: 1-72 < REW>
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A;Title: Analysis of interferon-alpha 2 sequences in human genomic DNA.
A;Reference number: I56312; MUID:93375201
A;Accession: I56312
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Proteins 17, 62-74, 1993
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 LTEKKYSP 8
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87.5%;
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(Thr) (covalent) #status
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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Leung, D.W.; Dull, T.J.; 6, 1981

Gross, M.; Lawn, R.M.; McCandliss, NID: g32635; PIDN: CAA23794.1; PID: g32636

Seeb

mRNA

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R;Shirono, H.; Koga, J.; Uemura, H.; Matsuo, A.
Biosci. Biotechnol. Biochem. 58, 1714-1715, 1994
A;Title: Identification of glycosylated subtypes of interferon-alpha produced by human
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A;Cross-references: GB:V00542; GB:J00214; NID:g32720; PIDN:CAA23803.1; PID:g32721
A;Note: a variant sequence differs from that shown in having 175-Phe, 182-Lys, and 184
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F;1-23/Domain: signal sequence #status predicted <SIG>
;24-189/Product: interferon alpha-T-14 #status experimental <MAT>
;24-122,52-162/Disulfide bonds: #status predicted
F;25,95/Binding site: carbohydrate (Asn) (covalent) #status predicted
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A; Residues: 'X', 25-43 <SHI>
A; Experimental source: leukocyte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Molecule type: DNA
A;Residues: 1-189 <ULL>
A;Residues: 1-189 <ULL>
N;Cross-references: GB:V00531; NID:g32631; PIDN:CAA23792.1; PID:g32632; DDBJ:J00217
N;Note: this interferon is derived from a gene referred to as J by the authors
R;Henco, K.; Brosius, J.; Fujisawa, A.; Fujisawa, J.I.; Haynes, J.R.; Hochstadt, J.;
J, Mol. Biol. 185, 227-260, 1985
A;Title: Structural relationship of human interferon alpha genes and pseudogenes.
A;Reference number: A92916; MUID:86037205
A;Accession: S43717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  interferon alpha-7 precursor - human
N;Alternate names: interferon alpha-J; LeIF J
C;Species: Homo sapiens (man)
C;Date: 18-Aug-1982 #sequence_revision 18-Aug-1982 #text_change 18-Jun-1999
C;Accession: A01831; S43717
R;Ullrich, A; Gray, A; Goeddel, D.V.; Dull, T.J.
J. Mol. Biol. 156, 467-486, 1982
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A;Accession: PC2203
                                                                                                                                                                                                                 C;Keywords: antiviral; cytokine; leukocyte
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-189/Product: interferon alpha-7 #status predicted <MAT>
F;24-122,52-162/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                      A;Cross-references: GDB:136364; OMIM:147567
A;Map position: 9p22-9p22
C;Superfamily: interferon alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Title: Nucleotide sequence of a portion of human chromosome 9 containing a leukocyte A;Reference number: A01831; MUID:83010248
A;Accession: A01831
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Best Local Similarity
Thes 7; Conserve
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A;Map position: 9p22-9p22
C;Superfamily: interferon alpha
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                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Gene: GDB: IFNA7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C; Genetics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Cross-references: EMBL: X02960; NID: g32665; PIDN: CAA26706.1; PID: g758081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: DNA
A; Residues: 1-189 <HEN>
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                                                    Local Similarity hes 7; Conserv
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1 LTEKKYSP 8
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                                                                                        Score 36; DB Pred. No. 4.9;
                                                                 Mismatches
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                                                                                                                        DB 1; Length 189;
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Db 154 LMEKKYSP 161

Search completed: January 15, 2002, 08:40:57 Job time: 254 sec